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AMERICAN RAILROAD JOURNAL.

NEW-YORK, FEBRUARY 28, 1835.

NEW-YORK AND ERIE RAILROAD.—This subject has been, we perceive, made the special order of the day for Tuesday next. We are gratified to find that this road is becoming one of more interest to the people at large, and especially so to the present legislature. It is truly one on which intelligent and liberal men can hardly disagree. It is one which will serve as a further facility to induce our western neighbors to make the State of New-York the route of their travel, and the city of New-York the great mart for their produce, and the source from whence to derive those immense amounts of merchandise which will be required to supply the millions of inhabitants which will, in a few years, inhabit the Territory between the Lakes, the Ohio river, and the Rocky Mountains—which is, in truth, the garden of the world. We have neither space nor time in this number to enumerate all the advantages to the public in general, and to this city and state in particular, which must result from the early completion of this work. The New-York and Erie Railroad should be made a link in the great thoroughfare to New-Orleans; and by a liberal course on the part of the State towards the company now holding the charter, it must become so. If, however, obstacles should be thrown in its way, and its construction should be delayed until the JAMES RIVER & KENHAWA, (Va.) improvement, the stock of which is, we believe, all taken, and two-fifths of it by the State, shall be constructed, and the NEW-ORLEANS & NASHVILLE RAILROAD, a survey of which is now being made by Mr. Ranney, formerly of the Lexington & Louisville, Ky. Railroad, shall also be completed,—and they will

unquestionably both be speedily accomplished,—when only about 400 miles of road, between Kenhawa and Nashville, Tenn., will be required to complete the great line of communication from New-York to New-Orleans, by the way of Virginia, Kentucky, and Tennessee, instead of, as every New-Yorker would desire, through the state of New-York by the New-York and Erie Railroad, around the corner of Lake Erie to Cleveland and Sandusky, Ohio, and by the Mad river railroad to Dayton; thence through a corner of Indiana and Louisville, Ky., to Nashville, Tenn., there connecting with the road to New-Orleans; we may long look in vain for another opportunity equally favorable to secure the Western trade. The distance from the termination of the New-York and Erie road to Nashville, Tenn., is about 675 miles, mostly through a level country, abounding with cheap materials for a road, and which will furnish abundance of business for the road when completed.

This is but a faint outline of the picture which might be drawn by an abler pen. Absence and other engagements prevent us from enlarging upon it, or filling it up. We shall endeavor, however, to show more clearly in our next number, if possible, the importance of prompt action by our Legislature to aid in the construction of a work, which, to the State, and more especially to the city, of New-York, is of vital importance—one to which, we doubt not, every enlightened representative in her Legislature, or friend of the State at large, will be found friendly and ready to urge its early construction.

NAVIGATION OF THE OHIO.—In the competition for the trade of the great West, every fact relating to the advantages which other States may have over us, by reason of their earlier and more uninterrupted means of communicating with that region, becomes important to be known. In this point of view, we look upon the annexed extract from the Pittsburg (Pa.) Gazette, showing the average period during a series of years, in which navigation on the Ohio was suspended, either by ice in winter, or low water in summer.

Facts such as are here stated, afford the strongest arguments that can be advanced in favor of the New-York and Erie Railroad, by which at all seasons the intercourse between this city and

the lake (and, if the road should be constructed to Nashville, Tenn.,—as it most certainly should, and surely will be,—between this city and New-Orleans) could be kept up; and the termination of which at the lake, both by its more southerly position and the peculiar formation of the lake itself, would ensure an earlier and later navigation by some weeks than can be had from Buffalo.

[For the extract above referred to, see p. 117.]

PITTSBURGH, FEB. 19.—*The River.*—Some time during last night the ice in the river was broken up, and is now rapidly disappearing; it gives us pleasure to state that the disruption was very gentle, and that not the slightest injury, except, perhaps, the rubbing off a little paint, was done to any of the steam boats now lying along our shore. Several of the steam boats have already commenced taking in lading, and navigation will commence to-morrow; or, at the farthest, next day, the 20th or 21st instant.

PRIMARY GEOLOGY.—Dr. Boase is the author of a work expressly devoted to an examination of the *older formations*, or primary geology. From the few extracts and notices made of it abroad, it is certain of being received favorably by geologists in this country. The world was very slow in its progress towards its present condition; every object on which the philosopher fixes his eye, proves to him by incontrovertible evidence, that all this beautiful apparatus of vegetable and animal organization was a long time in being developed. The globe was in no condition for the present races of animals much longer ago, if any, than six thousand years. Traces of those constructed for existing on the earth in its primitive state are found imbedded in the rocks, to show us what has been. Certainly the forms of animals diminish in complexity of structure and in numbers, as we go back in the series, till they are actually lost in the granites.

A stage driver between Boston and Medford named Joseph Wyman, has just completed thirty years since he commenced running a stage between those two places. During the whole of that time he has never lost a trip by illness; never met with an accident, or lost a horse.

[From the London Repository of Patent Inventions.]
A Method of Working the Slides and Valves of Steam Engines when using Steam expansively.

A new method of working steam engines of the ordinary construction expansively, in which the time of cutting off the steam is regulated by the governor, is shown in fig. 1, which is a side view, in which some of the parts are seen in section, and in fig. 2, which is an end elevation of the cylinder, and nozzles and the gearing for working the valves. In both figures the same letters are placed beside the same parts.

The brackets into which the gudgeons, *a, a*, of the rocking shaft work, are bolted to the cistern; these brackets, the weights that balance the valves, and some other things are not drawn, in order that the new parts may be seen distinctly. *b, b*, the shaft which works the cut-off valves, moves in two levers, *c, c*, which are keyed on the rocking shaft. The governor makes the same number of revolutions as the crank shaft, and the wiper *d*, and the other parts connected with it, work the cut-off valves in the following way. Part of the governor rod is turned cylindrical, and there is one or more threads of a screw (which makes one revolution in about twenty times its diameter), raised upon it at this place; and the piece *f*, is bored, and it has a thread or threads cut into the hole, so that it may work easily upon the turned part of the governor rod, with the screw raised upon it. The outside of *f* is fitted into a hole bored through the wiper, in the very same way as the governor rod is fitted into the hole in *f*, only the screw should be raised in the eye of the wiper, to allow the collars that are fixed above and below it, to prevent it from rising or falling, to be as small in diameter as possible; as this will diminish the friction on the ends of the wiper, it will be more easily acted on by the governor. *e, e*, are friction rollers, and the parts *g, g*, of the frame that holds them, slide backwards and forwards in brass guides. The rod, *h*, communicates the motions of the frame to the lever, *i*, (shown by dotted lines in the elevation,) which gives motion to the shaft, *b, b*, on which the levers, *l, l*, are fixed; and these levers move the rod which works the cut-off valves, by means of the cross head, *s*, and the side rods, *o, o*. The rods, *n, n*, must have ball and socket joints, to allow their bottom ends to turn round, as they work the part, *f*, up and down.

The screw that connects the inside of *f* to the governor rod, should wind in a different way from the screw that connects the outside of *f* to the wiper. Both screws are drawn on the same side in the elevation, but they should be on opposite sides, as in fig. B, which is a ground section of some of the parts now described.

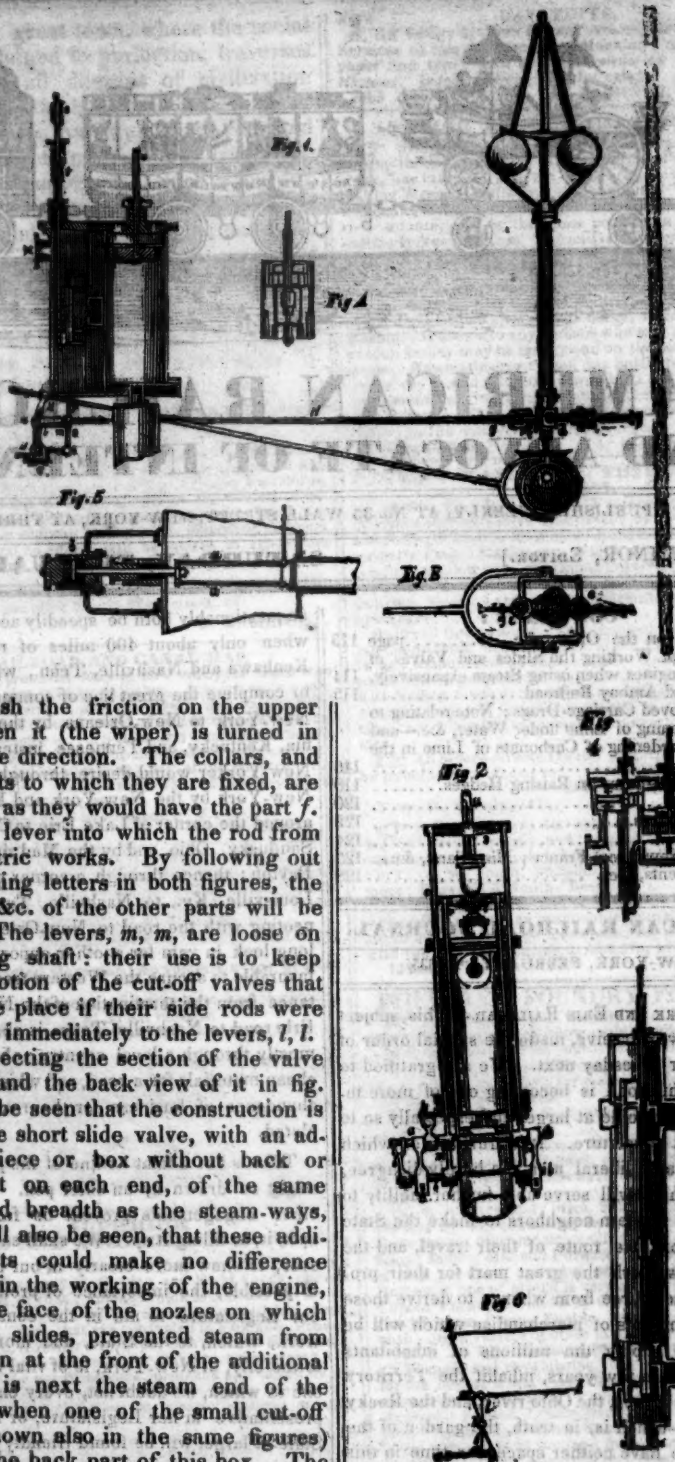
As the screw cut into the outside of *f* has its lateral direction as it winds downwards, the same as the motion of the wiper, the friction on the under collar will assist the governor to turn the wiper backwards, and the weight of the wiper

will diminish the friction on the upper collar, when it (the wiper) is turned in the opposite direction. The collars, and the brackets to which they are fixed, are not drawn, as they would have the part *f*. *k* is the lever into which the rod from the eccentric works. By following out the remaining letters in both figures, the positions, &c. of the other parts will be known. The levers, *m, m*, are loose on the rocking shaft: their use is to keep away a motion of the cut-off valves that would take place if their side rods were connected immediately to the levers, *l, l*.

By inspecting the section of the valve in fig. 1, and the back view of it in fig. A, it will be seen that the construction is that of the short slide valve, with an additional piece or box without back or front cast on each end, of the same length and breadth as the steam-ways, and it will also be seen, that these additional parts could make no difference whatever in the working of the engine, unless the face of the nozzles on which the valve slides, prevented steam from entering in at the front of the additional box that is next the steam end of the cylinder when one of the small cut-off valves (shown also in the same figures) covered the back part of this box. The rod which works the cut-off valves passes through the centre of the valve rod, which has a stuffing box at the top. In fig. A the two small rods are shown, which connect the two cut-off valves.

The manner in which the governor acts on the wiper so as to regulate the motion of the engine, will be understood from what follows. The wiper, *d*, must be so placed when the engine is working with the governor balls down, that it will work the cut-off valves, so that one of them will cover the additional box through which the steam is passed into the cylinder, exactly at the termination of the stroke of the piston; in this position of the balls, the engine is working slow, and it has the full pressure of steam du-

ring the whole length of the stroke, to bring up its motion. If the screws on the down end of the governor rod, and in the wiper, wind in proper directions when the balls move outwards, the wiper will be turned forward from its aforementioned position, and it will cut off the steam nearer to the commencement of the stroke. This will keep the engine working at about the same velocity, whether the load upon it is great or small, unless it is overburdened. When the wiper has made about half a revolution from its position on the governor rod when the balls are down, the balls are as far up as they can get, and the steam will be cut off at the very commencement of the



stroke, so there is no danger of the engines running away.

There is no pressure of steam, and in consequence of this there is very little friction on the cut-off valves when they are working: because, the box on the end of the slide valve that the cut-off valve is upon, is always so far past the termination of the face on the nozzles, that the steam is admitted to both sides of the cut-off valve that is moving off the box. This will be better understood by inspecting figures 1 and 3, where it will be seen that the terminations of the face on the nozzles are exactly in a line with the inside of the extreme ends of the additional boxes, when both steam-ways are covered by the slide valve; and as the faces on the back of the slide valve on which the cut-off valves work are raised above the back of the valve, there can be no pressure of steam on the valve that is open, to hinder its motion.

The movements of the rocking shaft cannot alter the position on the slide valve that the cut-off valves are put into by the wiper, *d*, on account of the end of the lever, *i*, into which the rod, *h*, from the wiper works, never being very far distant from the centre of motion of the rocking shaft. It would not do to let the shaft, *b*, *b*, work in fixed brackets, because the slide valve is always in motion and the cut-off valves would have no corresponding motion to keep them at their places on the slide valve.

As the extremities of the wiper are composed of circles drawn from the centre of the governor rod, the wiper will be very easily moved by the governor, when the circled parts are passing the friction rollers, for the friction of the wiper on the rollers at that time will be nothing, because the rollers are set just so far apart as not to touch the extreme parts of the wiper.

The stroke of the cut-off valves is very short, and the ruffs on the parts, *g*, *g*, regulate its length. When the shaft that works the cut-off valves is placed (as in figs. 1 and 2) under the rocking shaft, the rod *h* rests upon the top end of the lever, *i*, and its weight keeps the friction rollers from bearing upon the extreme or circular parts of the wiper, by bringing the frame to bear upon two of the ruffs of the parts, *g*, *g*.

As the screw feathers, that form the connection between the governor rod and the wiper, make only one revolution in about twenty times the diameter of the parts screwed, no power applied to the end of the wiper can turn it without taking the governor rod along with it, but the least power from the governor will cause the wiper to revolve on the rod.

If the wiper is made long enough, and its top end connected to the rods, *n*, *n*, there is no use for the intermediate part, *f*. In this case the friction rollers must have no flanges, and the wiper will rise or fall twice the distance that the part, *f*, rises or falls.

In fig. 3 a similar kind of cut-off valve is applied to the common, D, valve, as in

figs. 1 and 2. The end of the top education pipe is shown by the darkened circle, and the flanged branch at the top of the nozzles is under the education pipe. The steam pipe is on the side of the nozzles that is cut away, but its form and position are given by the dotted lines. Only a part of the cylinder is drawn.

Round slide or piston valves may have a smaller piston working inside of each valve to cut off the steam.

In what is termed the leech slide valve, the cut-off valves instead of sliding may work on hinges like a common foot or discharge valve. The cut-off valves in this case will be up or down when they are open, and their position when shut will be nearly a horizontal one.

The diagram (fig. 6) gives a very simple arrangement of the rods and levers for working the slide and cut-off valves in a horizontal engine. In this figure the same letters are placed beside the same parts as in figs. 1 and 2.

By applying the apparatus described in the above plans to a steam engine without a governor, its power may be altered without stopping it, by having a rod and handle connected to the part *y*. When no governor is required, it will be simpler to have the wiper, *d*, upon the crank shaft.

A cut-off valve, placed betwixt the top steam valve, and another one placed betwixt the bottom steam valve and the boiler, if they were wrought by a wiper, as shown in figs. 1 and B, would work well if the pressure of the steam was not upon the valves when they are opening. Valves constructed like the one shown in fig. 4, are well adapted for this and other purposes: the rod that works the valve is seen at *c*; *a*, *a*, are the rods that support the principal part of the pressure, and the rod, *d*, goes down the steam pipe to work the cut-off valve at the bottom. Fig. 5 is a plan of the valve on a large scale: in order to adjust it to its seat, cork, or some other substance that will spring a little, is put into the box *b*. The pressure may be on any side of a valve of this sort; if the pressure is on the same side of the valve with the rods, *a*, *a*, the joints of these rods may be left the least thing loose: in this case the method of adjusting the valve by means of cork is not necessary. The snug on the top of the valve seat, for the end of the valve to rest on, is only wanted in particular cases.

For slide valves, the plans given in figs. 1, 2, and 3, are best adapted, and for conical valves, the plans shown in figs. 4 and 5 may be adopted.

In the plans that are described in this letter for cutting off the steam at any portion of the stroke of the steam engine, the number of motions of the parts are one half less; the action required from the governor to turn the wiper is not so great (as the wiper never moves parallel to the axis of the friction rollers), and it is more uniform; and the steam is cut off nearer to the cylinder than in Messrs. Maudsley and Field's plan. Mr. Tredgold's method of work-

ing, by jerks, heavy slide-valves, that are either firmly packed, or else have a great pressure of steam upon them, is certainly not a good one, even if the time of cutting off the steam could be regulated by the governor. To persons who understand perfectly the old and the new methods, other advantages in the new over old plans, besides those now enumerated, will present themselves.

Shifting a wiper round to any position on its shaft, by means of a screw-feather, may be used to advantage in many mechanical arrangements besides the above.

I should have mentioned before, that the smaller of the two circles, which nearly circumscribe the wiper, *d*, must be a semi-circle; and I should also have noticed, that cutting off the steam at one end of the cylinder, opens the cut-off valve at the other end always soon enough to give the engine steam at the beginning of the next half of its stroke.

By giving this letter a place in your valuable journal, you will very much oblige yours, respectfully,

JAMES WHITELAW.

Glasgow, Nov. 12, 1834.

P. S.—A very simple, though perhaps not the best plan of working steam engines expansively, is shown in the annexed sketch, in which *a* is the pipe



leading from the boiler, and the ends, *b*, and *c*, of the pipe *b*, *c*, go, the one to the top, and the other to the bottom steam valve. If a plunger, *d*, which fits the pipe, *b*, *c*, exactly, be wrought up and down past the pipe, *a*, by means of a common eccentric, it (the plunger *d*) will cut off the steam at any portion of the stroke, by shifting the eccentric round on its shaft. By lengthening the faces of the cut-off valves, or by making a slip joint on the rod that works them, an eccentric may be used in any of the above plans, if it is shifted by hand, to its right position on its shaft.

By a trifling modification of the gearing for working the valves, the plans given in this letter may be applied to almost every form of the steam engine.

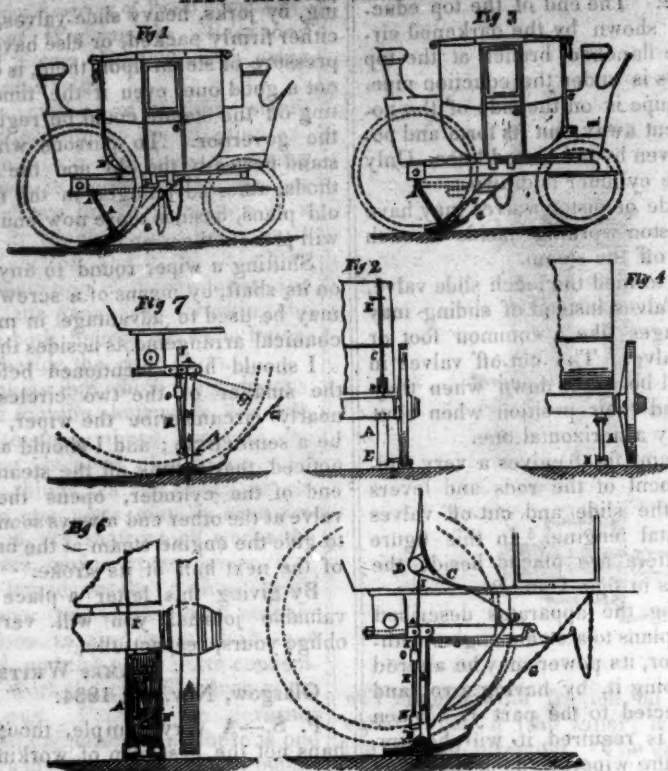
CAMDEN AND AMBOY RAILROAD.

Extract of a letter dated Trenton, Feb. 17th, 1835.

"This afternoon the following resolution was called up in the Council on its final passage, and carried by a vote of 11 to 2:

"Resolved," That the passage of any act by this Legislature, authorising or recognising any other railroad across this state, which shall be intended or used for the transportation of passengers or merchandise between Philadelphia and New York, would be unjust, impolitic, in violation of the faith of the state, and deeply injurious to its interests.

REES' IMPROVED CARRIAGE-DRAG.



[From the Repository of Patent Inventions.]

Specification of the Patent granted to DAVID REES, of Brecon, South Wales, Woollen Manufacturer, for Improvements on Drags or Apparatus to be applied to Carriages.—Sealed August 7, 1833.

To all to whom these presents shall come, &c. &c.—Now know ye, that in compliance with the said proviso, I, the said David Rees, do hereby declare that the nature of my said invention, and the manner in which the same is to be performed, are particularly described and ascertained in and by the following description thereof, reference being had to the drawing hereunto annexed, and to the figures and letters marked thereon, (that is to say):

Figs. 1 and 2 represent a side view, and so much of a carriage as is necessary to exhibit the application of my improved apparatus which consists of a drag. In the side view the drag is attached, in a working position, as having shod the wheel which does not require to have the progress of the vehicle impeded, to render it beneficially useful. A is the frame attached to the axle-tree of the carriage; B, the shoe; C, the strap, or chain, which is attached to the frame at E, passing over the friction pulleys, D, D, to the fixed catch, F, at the back of the carriage, where it is made fast by the coachman or guard; G is the drag-chain. The apparatus when out of use will assume the position under the carriage as shown by the drag and appendages in red color.* To put the apparatus in motion, the driver or guard of the coach has only to slip the strap or chain off the catch, F,

* Shown by dotted lines in the engraving.

and it will of itself fall down into action as represented.

Figs. 3 and 4 are similar views of another construction of drag, intended to raise the wheel and support the carriage, so that it may diminish the speed of the vehicle going down declivities. In all the figures, similar letters distinguish the respective parts. A is the frame; B, the skid; C, the strap or chain which is attached at E, passing over the pulleys, D, D, to the fixed catch, F, on the front of the coach, where it is as in the before-described figure made fast by the coachman or guard.

Figs. 5 and 6 are a side and back view of another description of drag, constructed for the purpose of being drawn up whilst the carriage is in motion. These figures are drawn to represent the apparatus in operation in the same manner as before described. The manner of effecting this will be seen on reference to fig. 7, which exhibits a side view of the drag with the catch, H, unlatched; to unlatch this catch, it is only necessary for the driver or guard to pull the strap, I, attached to the eye of the lever, K, as seen in fig. 6, when it becomes sufficiently removed to allow the catch to liberate itself from the latch, L, which is kept down in position by the spring, M. The guard or staple plate, O, is intended to retain the lever in its proper situation. Upon removing the catch by the means described, the wheel of the carriage again comes in contact with the ground to support the vehicle, and the drag may be taken up to the position shown in red color* under the body of the carriage. Now, whereas it is evident by the forego-

* Shown by dotted lines in the engraving.

ing description, that my improvements on drags or apparatus to be applied to carriages are applicable to every description of wheeled carriages, only varying the length and substance according to the diameter of the wheels, and weight of the carriage; and I therefore claim as my invention the application of the whole of the above combination as herein represented and described, without limiting myself to the use of any particular material.—In witness whereof, &c.

Enrolled January 7, 1834.

[From the Journal of the Franklin Institute.]

Note relating to the hardening of Lime under Water, by the action of Carbonate of Potassa, &c., and to the hardening of Carbonate of Lime in the Air, by Potassa and Soda. By A. D. BACHE, Prof. of Nat. Philos. and Chem., Univ. Penn.

The following experiments were made more than eighteen months since, and were suggested particularly at the time by the article of Professor Emmett, on the solidification of raw gypsum in the air, by the action of the alkali, potassa, and of certain of its salts. They commenced with an examination of the effect of certain salts of potassa and soda, and of caustic soda, on the hardening of carbonate of lime, and of common lime, in the air; and, by a natural transition, to a more interesting subject, the effect of these, and of other materials, on the hardening of lime under water. Not having leisure to prosecute this subject, I am induced to publish the results already obtained, that by attracting the attention of some one who may be favorably situated for carrying out the course of experiment which they suggest, it may be carried forward to completion. The conclusions cannot fail to be of interest, both in a practical and theoretical point of view.

It is well known that certain impure limestones yield, when calcined, a lime which hardens under water, technically called hydraulic lime. Experimenters, who have examined these limestones, with a view to determine the ingredient giving this hydraulic property, have not agreed in their conclusions; the essential ingredient has been in turn supposed to be silica, alumina, oxide of iron, and oxide of manganese. My friend, Col. Totten, informs me that Col. Troussat, in a recent work on mortars, attributes this power of conferring hydraulic properties upon lime, in certain cases, to soda—an ingredient which, before his examination, had not, I believe, been detected in any hydraulic limestones.

The method of ascertaining the effect of the substances experimented upon, in causing lime to harden under water, was similar to that employed by Raucourt, and described in his work on mortars. The mixture having been made, and brought to a paste of a proper consistency, was placed at the bottom of a glass vessel, and water poured gently upon it. A wire stem, terminated at

one extremity by a wooden disk, was placed vertically upon the mixture in the vessel, and the weight ascertained which was required to pierce the mass; the hole thus made being filled up, by tamping the mixture with a blunt stick, it was allowed to remain exposed to the action of the water for any desired length of time, and then subjected again to a similar trial.

As almost all common lime is slightly hydraulic, an examination of that to be used in the experiment was first made; having been slaked, and, when made into a thick paste, placed at the bottom of a wine-glass, and water added, the test stem was applied, the mixture having set, bore 1 oz. troy upon the head of the stem; after an exposure of one day, the mass bore 1½ oz.; and after two days, bore 3½ oz.; it had then been so far disturbed, that it would not resume its cohesion.

This common lime was thus shown to possess feeble hydraulic properties. When mixed with sand and water, so as to form a tolerably rich mortar, the mass, after it had set, bore 5½ oz. on the rod, and, after two days, 7 ounces, which was the maximum weight borne. In its mixture with sand, this lime formed a mortar which was feebly hydraulic.

Some of this lime was mixed with caustic hydrate of soda, which, however, had a portion of adhering carbonate. The proportion of soda added was not particularly attended to; it was, however, much less in weight than the lime. The mass became so soft, that when, after tamping in the bottom of the glass, water was added, the test rod penetrated it freely. After one day, the mixture bore 4 oz. troy, upon the wooden disk at the top of the rod; after another day, 5½ oz., which was the maximum. It recovered this strength twice, by the interval of a day between the times at which it was disturbed by the penetration of the rod. Soda, it then appears, renders lime, to a certain extent, capable of setting under water.

Lime being made into a paste, with soda and water, acquired considerable consistency in the air.

When lime was made into a thick paste, with a solution of carbonate of soda, and exposed to the air, it crumbled into dust; this being mixed again with water, assumed consistency at first, but subsequently crumbled.

Lime did not set in the air, when mixed with a solution of sulphate of soda; the incoherent mass was pulverized, and re-set with water, which increased the cohesion, but not very materially. Under water, the paste of lime and sulphate of soda, four parts of lime by weight, and one of sulphate of soda, bore 9 oz.; but on the very next day lost its cohesion.

Carbonate of potassa, mixed with lime, in the proportion of six, by weight, of the salt, to two of lime, formed a mass which crumbled in the air; but, being re-set with water, assumed considerable cohesion.

This same mixture had hydraulic properties; for 4 oz. of lime, 2 of carb. potassa, and 11 oz. of water, being mixed and placed under water, bore, after two days' exposure, 64 oz., or 5½ lbs., which was all the weight which was at hand. A mass of the same mixture, which had been exposed to the air, and was but slightly coherent, being placed under water, became quite hard.

An attempt was made, by reducing the proportion of carbonate of potassa to about 12 per cent., to harden the lime in the air; but it did not succeed.

A curious effect was produced by soda, and by potassa, on carbonate of lime, reduced to powder, and, after mixture with alkali and water into a paste, exposed to the air. The carbonate became, in one case, harder than the original material, and in another, but little inferior to it in hardness; in the former case, the experiment was made upon chalk; in the latter, upon Carrara marble. The marble had very nearly the appearance of the original material, and a cast taken from it would have had a beautiful appearance, very different from the dull white of plaster of Paris. Neither of these mixtures was hydraulic; and when a mass of chalk and soda, which had hardened in the air, was placed in water, it was completely disintegrated.

I had, at the time of making these experiments, a quantity of silica, which had been prepared by passing fluo-silicic acid into water, and which, never having been heated, was still soluble, though, of course, in a small degree; after repeated washings, it still restored the red color of alkanet, which had been rendered purple by a feeble alkaline action. This silica was mixed with lime and water, so as to form a paste, and being placed under water, would not bear the weight of the test rod; it was exposed for four days, and was softer, at the end of the trial, than at the beginning.

[From the Pittsburgh Gazette of Feb. 20.]

NAVIGATION OF THE OHIO.—The editor of the Philadelphia Commercial Herald, some time since requested us to give some account of the times at which the navigation of the Ohio was usually interrupted by ice and low water, for some years past. We had intended to do so, but other matters have prevented it. The opening of the river yesterday has called our attention to it again, and we now perform that duty in part. Messrs. Jacob Forsyth & Co. have politely furnished us with their steamboat reporter, since 1829, from which we collect the following information.

This book commences on the 4th of August, 1829, and gives arrivals and departures from and to Louisville, Cincinnati, throughout August, September, October, November, and December, of that year, and through January, February, March, and the succeeding months of 1830, until the 14th of July.

The last arrival in January was the *Talisman*, on the 18th, and the last departure, the *Lark*, on the 19th. Probably about the 20th or 21st, the river was closed by ice, though the book does not state this. Subsequently we find the following note:—"River opened Feb. 20, 1830." From the 14th of July, and through the month of August, September, and October, there were no arrivals or departures. On the 23d November, 1830, navigation was resumed, and continued open until the 14th January, 1831, when it ceased. Subsequently we find this note:—"River opened 19th Feb., 1831. Boats continued

to arrive and depart until the 27th of September, 1831. The last arrival was the *Versailles*, on the 26th, and the same boat departed next day.

From that time, there were no arrivals or departures until the 10th November, when navigation recommenced. Afterwards we find the following note:—"River closed Dec. 4th, 1831." Then the following:—"Ice broke January 7th, 1832." Subsequently the following:—"Navigation again stopped with ice, January 26th, 1832." It continued closed, however, but a short time; for, on the 1st of February, the *Talisman* departed for Louisville; and, on the 2d, the *Herald* (a new boat) for Mobile.

From this time, steamboats arrived and departed with ordinary regularity, until the 29th of June—from that day, there was neither an arrival or departure until the 11th of August, when navigation recommenced, and continued until Sept. 4.

From the 4th of September till the 9th of November, navigation was suspended by low water. From the 9th November, 1832, there was no interruption until the 21st day of July, 1833, except from the 14th till the 19th Jan., that being the longest period in which there was no arrival or departure.

On the 21st of July, 1832, departed the steamboats *Mount Vernon* and *Albion*, being the last. There was then neither an arrival or departure until the 23d of September. From that day till the 1st of November, there were 13 arrivals and 19 departures. During the months of November, December, and up to the 3d of January, 1834, the navigation was brisk and active. Then we find the following notes:—"Monongahela river closed January 9th, 1834. Allegheny closed same day." Immediately below is the following note:—"Ice broke up, with high flood Jan. 12." From that date, until the 29th of July, navigation was regular and uninterrupted. During August and September, there was neither arrival or departure.

Then comes the following note:—"Navigation commenced for Steam Boats, Oct. 13," and continued until January, 1835, when we noticed the following minute:—"River closed on the night of the 3d of January, 1835." Then—"River opened on the 23d."

Navigation then became quite brisk—but, on the 6th of February, inst., it was again stopped by ice. On the 19th inst., the ice broke up again, which brings us to the present time.

Here, then, we have a faithful account of the interruptions of navigation during five years and a half, by which it appears that—

In 1830, the interruption by ice was about 30 days.
1831, do do 61 do
1832, do do 12 do
1833, do do 5 do
1834, do do 3 do
Total interruption by ice, 111 days.

In 1830, interruption by low water about 130 do
1831, do do 44 do
1832, do do 109 do
1833, do do 64 do
1834, do do 76 do
Total interruption by low water, 423 do.

Total interruption by ice and low water, 535 days.

It is gratifying to find that the interruption, by ice, during these five years, was less than four months. The obstruction by low water may be remedied.

The following tribute to the talents of Trumbull, as an artist, is just and the more valuable, as coming from an artist. It is an extract from a letter.

I am sorry that Mr. Dunlap should have attacked the old Colonel. Colonel Trumbull's name will endure, and his pictures be valued as memorials of the people of those times. Colonel Trumbull's little pictures at New Haven are gems of art, worth their weight in gold, and had they represented British victories over us, would have filled a conspicuous place in their National Gallery.

[From the New-York Farmer.]

We would ask for the following, which we take from the Genesee Farmer, an attentive perusal. It relates to a subject becoming daily of more importance, and should be better understood. We ask attention also to the able essay read before the Highland and Agricultural Society of Scotland upon the same subject, from the December number of the "Edinburgh Quarterly Journal of Agriculture." We shall, at our convenience, give another from the same work, upon the same subject, which cannot fail to be useful to some of our readers.

LIVE FENCES.—From an article on this subject in the January number of the Cultivator, we select the following:

The subject of live fences is one of increasing importance to the agriculture of our country. We have many champaign districts of choice land, particularly in the west, and independent of prairie tracts where there is not likely long to be a reservation of much timber ground, and where there is few or no stone to construct fences. In those districts fencing materials will soon become extravagantly high, and the inhabitants seem to be threatened with the alternative of either dispensing with enclosures, as in France, or of resorting to live fences, as in England. The latter is decidedly preferable, not only to open fields, but to dead fences, unless in districts where fencing materials are abundant and cheap.

Caleb Kirk, of the state of Delaware, a man of the highest reputation for veracity and practical knowledge in husbandry, published some years ago, in the American Farmer, several numbers on hedging, in which he gives the result of nearly twenty years' successful experience. In 1810 he states the actual cost of 1,000 feet of an efficient hedge fence, as follows:

1,000 plants, planting and care first year,	\$8 50
Dressing and care of plants 6 years following,	5 00
Expense 7th year for stakes, splashing, &c.	11 25
Expense 6 following years,	4 50

Total expense for 13 years,	\$29 25
The posts and rails for 1,000 feet of fence are stated at	75 00

Showing a gain in favor of the live fence of \$45 75 in the 13 years, besides the advantage of the live fence being permanent—as good as new—while the dead fence would have gone to decay, and required a new expenditure to rebuild it. In 1832, when Mr. Kirk's judgment had been corrected by four years' further experience, he says, "I find that forty cents a rod will complete the raising to a mature age, and one cent a rod will fully maintain forever after, if duly attended to, and applied with judgment. No failure has ever appeared, except some local cause is present; therefore durability is now well established."

If by "hedge thorn" is meant the English hawthorn, (*Crataegus oxyacantha*), our decided opinion is, that it will not answer in Ohio, as it does not do well here in a latitude nearly parallel. We have given it a fair trial, and after patiently nursing it seven years, abandoned the hope of success, and dug up a hedge row of nearly a half a mile of it, and substituted other plants. Neither our summers nor our winters seem suited to its growth and preservation. The yellow locust is wholly unfit for hedges, from the fact that it produces innumerable sprouts from its roots, which would disfigure the

hedge, and seriously encroach upon the fields. Yet we do not know of a tree which it would be more valuable to plant upon the western prairies for wood and timber, than the yellow locust. The growth is rapid, it propagates itself, and it affords a valuable material for fence posts, mill works, and ship building. It will attain a maturity fit for these purposes in twenty-five years from the seed. But the thorns of our country afford excellent materials for live fences, particularly in the districts where they are found growing naturally. This we state as well from personal experience and observation, as from the information of others. In the middle states we have seen good hedges of the Virginia and Newcastle, or cockspur thorns, and we have a promising hedge composed of several indigenous kinds, gathered from the woods and pastures. But the great difficulty is in managing our hedges well. Our own people have as yet but little practical knowledge on the subject, and too many of the foreign laborers, who profess a knowledge on this subject, are mere quacks at the business of managing them. Besides, our climate differs from that of Great Britain, and demands a different culture from that which succeeds there. We have more cold, more heat, more drought. The ditch and bank will not do here, nor is it desirable that it should, as it causes a waste of ground, is unsightly, and is too often a nursery for noxious weeds. A bank and ditch require a width of eight or ten feet, while a simple hedge does not occupy more than two or three feet.

It is believed all the species of native thorn will answer for hedges, as well as many others of our native shrubs and trees. The Bostonians speak well of the buckthorn, though we have never seen it assume any thing more than an ornamental appearance—nothing like a barrier to cattle. We have planted the honey locust, (*Gleditsia trinanthos*), as a material to experiment upon; and so far our confidence of success remains unimpaired; though we are not yet prepared to speak with confidence of the result. The best evidence of our confidence in it is furnished by the fact that we have now a mile or two of hedge row of the plants growing, planted in four or five successive years. The principal fear is that it may grow too large, an objection which will not apply so forcibly in Ohio, where land is abundant, and where the level nature of the country renders shelter desirable in winter. Yet we think, from our manner of training, the nearness of the plants, and by careful attention to clipping, when the growth of the hedge requires it, we can keep it within reasonable bounds. The honey locust, when cut in, does not throw out numerous shoots, like the thorn, but the principal growth is confined to a single stem. Our remedy for this defect is, to bend down and lay in the plant at a uniform height, when the stocks are from one to two inches in thickness, and to repeat laying the new growth every second or third year till the horizontal barrier is four to five feet high. The tops are wattled to the right and left alternately of the adjoining plants; and if the top is not depressed below a horizontal position, it continues to live and grow, and sends up shoots from nearly its whole length. The hedge of course becomes firmer and stronger every year.

We will close our remarks by advising Mr. Lockwood and his neighbors to collect, without delay, haws or seeds of the indigenous thorns of their neighborhood, and seeds of the honey locust, which we believe is a native of their forest, and to sow them in the spring in beds of good earth. The

first will not come up till the second year, and many seeds of the latter will not germinate in a shorter time. Keep the seed beds free from weeds, and after two years' growth, the plants will be fit to put in a hedge row. They may also collect in the spring from the woods plants of the thorn, of any moderate size, say from the eighth of an inch to two inches thick, saw off the tops near the roots, and having prepared the ground well, make a trench on the site of a desired fence, and plant the roots one foot apart.

[From the Prize Essays and Transactions of the Highland and Agricultural Society of Scotland.]

ESSAY ON RAISING AND MANAGING HEDGES.—In 1833, the Society, considering the subject of Live Fences as one of much importance, offered a premium for an approved Essay, founded on experience, on the manner of raising and managing hedges, and on the kinds of live fence suited to differences of soil, climate, and situation.

The several candidates were required to detail the manner of forming the mound, ditch, and other parts of the fence; the proper period of planting, the price of the plants, the prime cost of wood for rails, and the expense of sawing and putting up the rails; together with the subsequent management. They were also required to state the different kinds of plants adapted to live fences, and suited to differences of situation, soil, and climate; to explain the advantages and disadvantages of a mixture of plants; and to offer suggestions regarding the means of improving the state of the fences of the country. Three Essays were received, to the authors of which premiums were awarded, and of which a condensed account is here presented. It is unnecessary to offer any remarks on the respective merits of these essays, and the different modes recommended, as each of them is given in a tolerably detailed form.

Essay: By Mr. MONTGOMERY, Buchanan House, near Drymen.—Various plans are in use for raising hedges. The first is, to plant the hedge on an even surface; the second, to place it on a raised surface; the third, to form a ditch, and to plant the hedge at the surface in the side of the ditch; the fourth, to form a mound, and plant the hedge in the middle of it; the fifth, to plant a hedge on each side of the mound, thus forming a double fence; the sixth, to build a sunk wall, or to form a sloping cut, and to plant the hedge at the top of the wall or cut.

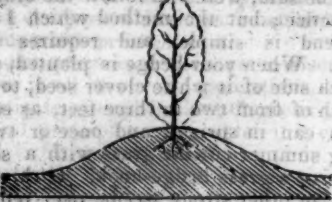
Fig. 1.



The first method, that of planting a hedge on an even surface, is represented by Fig. 1. The line being marked out, the ground should be trenched, one yard and a half wide, and eighteen inches deep; and when of bad quality, it should be improved, by adding good earth. This part of the work may be done at any time of the year. When you are going to plant your hedge, make an even downward cut with the spade the length of the line, along the middle of the trenched ground, and lay it upon one side. When this is done, drop your plants

along the line, in the order in which they are to be planted, and plant them neatly to the side of the cut, placing them three or four inches apart, according to their size. When they are fixed along the line, let the mould be properly trodden to their roots; then dress the ground to the hedge. This sort of hedge requires a strong railing to be kept up, until it become effective as a fence.

Fig. 2.



The second method, although similar to the first, is yet, in my opinion, preferable, on account of the surface being raised a foot high in the middle, as shown by Fig. 2. You prepare your ground as in the first plan, but observe to throw as much mould from the sides as will raise it to the height in the middle. Then plant the hedge as above. A four feet hedge will be as good a fence on the raised surface, as one of five feet on even ground, and the expense is nearly the same.

Fig. 3.



The third plan is the usual method of making a ditch along the line, three feet inside at the surface, nine inches at the bottom, and two feet and a half deep, all the earth being thrown on the side of the ditch on which the hedge is to be planted, it being usually placed near the surface of the ground, at the edge of the ditch, as shown by Fig. 3.

Fig. 4.



The fourth plan is to form a mound two feet six inches wide at the top, five feet six inches at the bottom, and three feet high; the hedge being planted in the middle of the mound, as shown by Fig. 4. In the fifth method there is a mound, with a hedge planted on each side, as shown by Fig. 5, the mound being three feet six inches wide at the top, six feet six inches at the bottom, and three feet high.

The sixth plan, Fig. 6, is to have a sunk wall two feet nine inches in height, two feet wide at the bottom, and ten inches at the top. The wall should be perpendicular in front, having the slope all at the back, from the bottom to the top; the back should be well packed or built, filled with

Fig. 5.

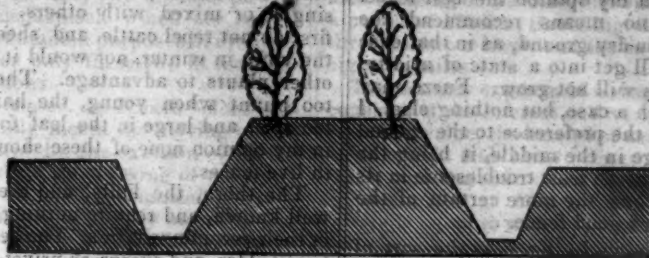


Fig. 6.



good earth, and the hedge planted close to the top of the wall. This, in my opinion, is the most efficient fence, and in the end the cheapest. The hedge should not be allowed to grow higher than two feet and a half. When stones are not easily got, you have only to use turf a foot or nine inches high, if the ground is good, and this turf you can get from the surface you move in making the sloping cut. Where the ground is good, raise the wall or building with turf nine inches above the original surface; when poor, raise it a foot, and fill it well up at the back with the best of the earth for the hedge, which is to be planted a foot back from the front. The cut requires to be only two feet deep if the ground is good, and one foot nine inches deep when it is poor.

The next thing to be considered is the expense of executing the work in the different ways. According to the first two plans, where the ground can be worked with the spade, the expense is nearly equal, as the additional work in raising the surface in the second plan is balanced by the expense of staking being less than in the first, a stab or stake four feet long on the raised surface being equal to one of five feet on the even surface.

Trenching the ground a yard and a half wide, one foot six inches deep, can be done per lineal yard at..... £0 0 11
Taking out the spading along the middle, and planting the hedge..... 0 0 1
Expense of plants, nine or ten to the yard..... 0 0 24
Expense of railing, five-foot stakes, two to the yard, rafter and nails..... 0 0 21

Amount per lineal yard..... £0 0 74

In the second plan, the railing requires a stake of only four feet, and, in my opinion, a hedge on the raised surface will become a fence two years sooner than one on the even surface. There is also one-fourth less expense in the annual dressings. The cause of this is obvious, as a hedge on the raised surface is as good a fence three feet high, as a hedge of four feet on the even surface.

Expense of trenching and raising the ground per lineal yard..... £0 0 2
For plants and planting the hedge..... 0 0 31
For four-foot stakes, two to the yard, rafter, nail, and putting up..... 0 0 24

Amount per lineal yard..... £0 0 74

In the third plan, or the common way of a ditch and a hedge on the side, the usual way is, when the ditch is cut on each side,

to take a good turf, and lay it with its grass side downwards, on the side of the ditch where the hedge is to be planted. Lay the turf to fit the slope of the ditch, the slope to be six inches in the foot. Then plant your hedge, nine or ten plants to the yard, with the tops of the plants even with the slope of the ditch, on the top of the turf, putting the good surface-mould to the roots of the plants, and throwing the rest of the earth that is taken out in forming the ditch to the back of the hedge. This method of planting the hedge I do not approve, for the following reasons: The first year the hedge looks likely to succeed, but the second year the frost during the winter loosens the earth about the roots, when much of it falls down into the ditch, and the roots of the hedge become exposed, and are injured by the dry weather in summer, so that the hedge makes little progress, and becomes stunted in its growth.

Expense of forming the ditch, as shown by fig. 3, per lineal yard..... £0 0 2
Expense of plants, and planting the hedge, 9 or 10 to the yard..... 0 0 34
Three-foot stakes, rafter, nails and putting up..... 0 0 21

Amount per lineal yard..... £0 0 74

According to the fourth plan, you begin with a surface three feet and a half wide, building up the sides with turf a foot high on each side, and sloping six inches in the foot, which will make the top of the mound two feet six inches wide; and on each side make the sloping cut two feet high, which makes the mound five feet six inches wide at bottom. The good earth moved in making the sloping cut is to be thrown into the mound, in sufficient quantity to allow for subsiding.

Expense of forming the mound per lineal yd..... £0 0 24
Do. of plants and planting along the middle of the mound..... 0 0 24
Do. of stakes of two feet six inches, rafters, nails, and putting up..... 0 0 14

Amount per lineal yard..... £0 0 74

The fifth plan being somewhat similar to the fourth, only having a double hedge, will require three feet six inches of width at the top, four feet six inches at the surface, and six inches at the bottom. The sloping cut on each side is shown by fig. 5.

Adding 2d. per lineal yard to the expense by the fourth plan, that of the present will amount, per lineal yard, to..... £0 0 94

I would here observe, that the single hedge planted in the middle is the most ad-

visible, and in my opinion the best fence. I would by no means recommend the mound-fence in dry ground, as in that case the mound will get into a state of aridity, and the plants will not grow. Furze may answer in such a case, but nothing else. I certainly give the preference to the mound with the hedge in the middle, it being the least expensive, the least troublesome in its management, and the more certain of the two to become a good fence.

The plan shown by fig. 8 is the sort of fence which I would particularly recommend as the most substantial and efficient for inclosing ground for planting, and in every respect the most effectual in the shortest time, and attended with the least expense in the management after being planted.

The expense of the first method shown by fig. 6, or when built with stone in front, is as follows:

For building and sloping the ground, per lineal yard..... £0 0 6 1/2
Expense of plants and planting the hedge... 0 0 3
Railing stakes two feet, rafters, nails, and putting up..... 0 0 1 1/2

Amount with stone facing, by the sixth plan, £0 0 11

When the side is built of turf, the expense is as follows:

For building the side, and sloping the ground, per lineal yard..... £0 0 2
Expense of plants and planting..... 0 0 3
Railing 2-foot stakes, rafters, and putting up, £0 0 6 1/2

The last plan with turf, as shown by fig. 6, is the cheapest in putting up, but that with the wall in front is the best. The great advantage is the planting of the hedge a foot back from the front, at the top of the building with stone or with turf. This allows the hedge to have a plentiful supply of moisture at the root, without being injured by the changes of the season. The railing is less expensive, as the hedge will become a fence in half the time required for the first and second methods, and the hedge in either of the last two plans being a good fence when two feet high, whereas, by the first two plans, it will require to be four feet high.

The mound-fence, with the hedge in the middle, would, in favorable situations, be a good fence in the same period as by the last methods; but there are few situations that suit this mode of fencing, for the reasons already stated.

I have now to speak of the different sorts of plants used in making fences. The following are the kinds respecting which the society demands information, with their prices per thousand.

Hawthorn, *Crataegus oxyacantha*, 20 to 24 inches high..... 8s. to 10s.
Beech, *Fagus sylvatica*,..... 15s. to 20s.
Hornbeam, *Ostrya vulgaris*,..... 15s. to 20s.
Birch, *Betula alba*,..... 15s. to 20s.
Holly, *Ilex aquifolium*,..... 50s.
Furze, *Ulex europaeus*,..... 15s. to 20s.

To these may be added,
Yew, *Taxus baccata*,..... 100s.
Evergreen Privet, *Ligustrum vulgare*,..... 15s.
Elder, *Sambucus nigra*,..... 30s.

The thorn, hornbeam, holly, and yew, are raised from seed, generally sown in autumn; the beech and whin are sown in spring; the evergreen privet and elder are raised by cuttings four or five inches long, planting them in the ground early in March, in rows of a foot between, and three inches in the row. More sorts might be added, but the above are those most approved of for live fences.

The hazel, birch, and whin, I do not

hold in much estimation, whether used singly, or mixed with others. The two first do not repel cattle, and sheep destroy the whin in winter, nor would it mix with other plants to advantage. The birch is too pliant when young, the hazel grows too open and large in the leaf to mix, and in my opinion none of these should be used in live fences.

The thorn, the holly, and the yew, are well known, and require nothing to be said in their recommendation. The beech, hornbeam, elder, and evergreen privet, are particularly suitable for mixing in live fences, and are also long-lived plants.

Those which I would most recommend for being generally useful as fences, are the thorn and evergreen privet, the elder and evergreen privet. When the hedge is of the first two, let the proportion be two plants of thorn to one of privet; when of elder and evergreen privet, let the number be equal; when of thorn and beech, let there be two of the thorn to one of the beech; and when of thorn and hornbeam, let them be alternately planted.

The thorn and hornbeam, the thorn and beech, the elder and hornbeam, and the elder and beech, make good hedges, and have a reddish appearance during winter. The evergreen privet, mixed with thorn or elder, makes a very good hedge, and has a beautiful olive green appearance during the winter, when dressed in proper time in summer. Therefore I consider it the best plant to mix with the thorn, or with the elder, as the cattle do not eat it so readily, nor have I seen it infested with any sort of insect. The leaves being small, are not injurious to the hedge; the roots are also very numerous, and soon fix the mould at the surface, so as to prevent it from falling away from the hedge, or tumbling down into the ditch.

Hedges should be cut or dressed in the middle of summer, and the usual way of dressing them only in winter is very objectionable, the growth of the hedge being, as it were, lost; from being allowed to grow at the top all the season, it becomes there luxuriant, while at the bottom very little progress is made, and in a few years it becomes quite naked below. By cutting the hedge in summer, an equal growth is produced all over, from the bottom to the top; and by the second growth its closeness is increased, and the hedge greatly improved. The dressing should take place from the 20th of June to the middle of July, according to the advanced growth of the hedge. By attending to this plan of dressing your hedges twice in the year, you would do them in much less time than would be the case were you to allow them to grow on all the season without cutting.

The season for planting hedges is often too little attended to, such work being left until spring; but the proper time is when the leaf begins to drop from the young thorns. I recommend planting hedges in November and December, and not later than February; for then the juices begin to circulate, and cutting the roots after that period allows the sap to escape, and thus retards the growth of the plant the first season. The hedge ought to be planted, as recommended, with well selected plants, from twenty to twenty-four inches high, and two years transplanted. They are to be cut down to twelve inches, and if properly planted will make fine strong shoots the first year, which should not be cut until winter, when the hedge is to be dressed in the wedge form to 18 inches high. After the first year dress your hedges in sum-

mer, and in the end of the season, increasing them gradually to the height required.

When the hedges are well managed, those at the top of the sunk wall, or building of turf, as shown by fig. 6, will be a good fence the third year; on the raised surface in four years; and on the even surface in six.

On the subject of weeding the hedges and cleaning the ditches, a great deal might be said, were I to follow the ordinary practice; but the method which I recommend is simple, and requires few words. When your hedge is planted, sow on each side of it white clover seed, to the breadth of from two to three feet, as early as you can in spring; and once or twice during summer cut the grass with a short scythe, or a grass hedge-hook. If thistles, docks, or other strong weeds, rise, remove them; but never dig about your hedges, unless you are going to add plants. Let the grass be kept down two or three feet out from the hedges, and dress them as directed.

Ditches require very little cleaning, if made according to the plan recommended above, one in two years being enough, and the expense trifling. When the side your hedge is on is well sloped, there is little falling down, and on the opposite side, sloped away from the bottom of the ditch, there is very little filling up, so that, in most situations, the business may be done for less than a halfpenny per yard.

When you put up your railing to serve as a fence and as a protection for the young hedge, particularly in the case of that planted on the even or raised surface, in the division of fields, with cattle occasionally grazing on each side, I would recommend to put the stakes alternately on each side, one foot six inches out from the hedge, driving them sloping, so as to project six inches over the hedge, they being four feet or four feet and a half long.

For the other fences, stakes two feet or two feet and a half long, are sufficient. Drive them into the ground at the distance of one foot from the hedge; and in putting up the railing, drive the stakes on one side first, nailing the rafters two inches from the end of the stakes, making the rafter to be exactly over the top of the hedge. When this side is finished, drive the stakes on the opposite side, making them to rest on the rafter, and project two inches over it.

When hedges require to be protected on one side only, make your railing accordingly. For the sunk wall or hedge, and building with turf and hedge, use stakes two feet long; drive them into the ground six inches, and four or five feet apart, sloping so that the top-rafter will be even with the outside of the wall or turf, and let another rafter be half-way between the top-rafter and the turf or wall. Such protection for the fence will be found a sufficient fence for repelling sheep or black cattle, on either of the last-mentioned plans, until the hedge is an efficient defence of itself, it being observed to bring the hedges in the cutting, as soon as it can be done, even with the front of the turf building or wall.

ON DRAUGHT, No. 1.—It may be recollected that, while treating upon the qualities and history of the Horse, I alluded not unfrequently to the subject of draught, as being an interesting topic of investigation. More recently I have had occasion to examine the subject with some care, with especial reference to canals and canal transportation. To a superficial observer, the subject promises nothing of interest; and even to more

reflecting minds it is often passed by, as a matter familiar to all, and requiring no special consideration. The application of animal power in the conveyance of property, is indeed an every day occurrence, and we are all constantly in the habit of applying principles and using expedients, for which we can give no more satisfactory reason, than that they answer our present purpose. The slightest reflection, however, will readily convince us, that the use and application of power, in every possible shape, must involve many important principles.

I do not propose, at present, to discuss this topic in all its varied applications, nor to investigate or explain the numerous philosophical principles with which it is connected; but merely to offer some plain reflections upon the result of my inquiries; and if they shall afford any gratification to the readers of the Farmer, they are heartily at their service.

Draught, in the sense I shall here use it, is the moving of any substance, by *dragging*. The subject is usually divided into three parts: first, the power to be applied; second, the substance or vehicle to be moved; and third, the channel of conveyance.

The first of these divisions embraces a wide field of investigation, inasmuch as the application is co-extensive with the works of nature.

Power, in the abstract, is a mysterious and inexplicable principle, and far beyond the reach of our comprehension. Its application, however, in all the varied operations of nature and art, and the laws which govern this application, have been subjects of philosophical investigation from time immemorial. This must ever be the extent of scientific research; for the moment we pass these boundaries, we are lost in the contemplation of Omnipotence.

Aside from Deity, the great author of all power and motion, we know nothing of their origin or cause; and it is curious to notice, how strangely philosophers and sages have argued and reasoned on this subject, until within a few years; simply by mistaking the effect for the cause. If we reflect a moment upon the cause of our own locomotion, we shall at once perceive, that what is usually called *animal power*, and concerning which so much has been written, as a *first cause of motion*, is, after all, something we cannot fathom. When a person, from a state of perfect inaction, sets his body in motion, he exerts great *animal power*; but this is only its effect, and not the cause. Suppose a man throws a cannon ball to any given distance; he exerts great power, and the man is considered as the moving principle, the cause of the motion of the ball. But from whence does he derive this power? There is nothing in bone and muscle to propel a ball any more than in a stick or stone; all are wholly inert, until some moving principle is applied. A mass of flesh exerts no power; nor does spirit apply at all to material matter. Whence, then, comes this moving principle? It is not inherent in flesh and blood; nor is it the consequence of spiritual agency: for beasts, who have no spirit, exert the same power. What, then, is *animal power*? Here we are lost in the infinitude of Omnipotence, and are left to admire and adore that wisdom and goodness which has invested us with such mysterious and wonderful qualities. All we are permitted to do, is to apply this principle in all the various circumstances of our existence, and to investigate its effects, when thus applied.

My present object, however, is only with the application of this principle to *draught*;

and as there are only two kinds of power, animal and mechanical, which are as yet applied to the common purposes of draught, I shall consider only these two in their various applications.

By *animal power*, as I have before intimated, is simply meant the moving of any given substance by the exertion of animal strength, such as the drawing of a cart by a horse, or an ox. *Mechanical power* is the same principle applied by means of machinery, and usually is the effect of steam.

As much competition has arisen of late between these two agents, by the introduction of railroads, it might be an interesting inquiry to compare their respective merits, with all their attendant advantages and disadvantages; but I have neither time nor inclination for so great a task. Still, it may be well to state a few circumstances connected with their respective operations. And before doing this, I will explain what is meant by "force of traction," a term which is constantly used in speaking on this subject; and for this purpose, I will avail myself of an extract from a foreign work.

"A force is most conveniently measured by the weight which it would be capable of raising; but it is not therefore necessarily applied vertically, in which direction weight or gravity acts.

"If a weight of 100 lbs. be suspended to a rope, it is clearly exerting upon this rope a force of 100 lbs.; but if the rope be passed over a pulley void of friction, and continued horizontally, or in any other direction, and then attached to some fixed point, the weight still acts upon all parts of this rope, and consequently upon the point to which it is fixed, with a force equal to 100 lbs.; and so inversely, if a horse be pulling at a rope with a force which, if the rope were passed over a pulley, would raise 100 lbs., the force of traction of the horse is in this case 100 lbs." Spring steel-yards being now commonly in use, we may be permitted to refer to them as affording another exemplification of our meaning. In pulling at a steel-yard of this description, whether the force be exerted horizontally or vertically, the index will, of course, show the same amount—and, consequently, if the strength of the horse be measured by attaching the traces to one of these steel-yards, the number of pounds indicated on the dial will be the exact measure of the strain the horse exerts, and the amount of strain is called the "force of traction."

In other words: a man may be able to draw or push upon a railway a carriage weighing 2,000 lbs., while at the same time he cannot lift more than 100 lbs. It will readily be seen, that the latter is the measure of his strength, or force of traction, while the former is simply the effect of it.

The force of traction of a horse has been variously estimated by different authors from 80 lbs. to 200 lbs.; but the ordinary average at a slow pace is now rated at 125 lbs., over and above the power necessary to carry his own body.

The comparative merits of horse and steam power, when applied to the conveyance of property, must depend principally upon their practicability and expense. These two points are most conveniently tested upon railways; where both powers are constantly in use, and of course their practicability proved.

The annual expense of a horse depends upon the interest of purchase money, the decrease of value, the hazard of loss, the value of food, harness, shoeing, and farriery, rent of stabling, and expense of attendance. These are estimated in England, by Mr. Tredgold, in his work on Railroads, at about

£60 sterling, or \$266.40, allowing the horse a power of 125 lbs., travelling at the rate of three miles per hour, and the day's work at eighteen miles.

The annual expense of a steam carriage consists of the interest of first cost, the decrease of value, the hazard of accidents, the value of fuel and water, renewals and repairs, and expense of attendance. These are estimated at £51, or \$226.44. This power is equal to a force of traction of 155 lbs., for the same number of miles per day as the horse, and after deducting the power necessary to move the engine. Thus it appears that the expense of the horse is to that of the steam-engine about as 147 to 100; which shows a decided advantage in favor of steam power when used upon railways. If, then, the power of the horse and steam engine could always be applied to draught upon rails, we should be at no loss to determine the preferable agent; but unfortunately we are compelled to use roads as we find them; and under such circumstances, horse power presents a different aspect.

In the ordinary use of horse power upon common roads, the force of traction of the horse and expense of keeping will remain much the same as above stated, while those of the steam carriage, for the same purpose, must undergo considerable change. The carriage must be heavier and stronger, and of course the cost more; the expense of fuel more, and wear and tear greater, because more power will be required to overcome the varied resistance. Under these circumstances, the proportionate expense of horse and steam power is estimated to be about 115 to 100.

If this estimate is correct, there can be no great advantage arising from the use of steam power, even when the roads are good, and approximate towards the smoothness of rails, unless where velocity is required at the expense of power. Ordinarily, it will be found that the horse will adapt himself so perfectly to his work, increasing or diminishing his power, as occasion or resistance may require, that the *average effect* of his power will be increased, rather than diminished, thereby enhancing his average force of traction. On common roads great obstructions are often presented, and constant changes of ascent and descent occur; and it is on such occasions that horse power is decidedly advantageous.

On the contrary, a steam engine of a given power cannot increase or diminish its force to meet every little variation in the road, and it must consequently come to a dead stand when any resistance occurs beyond its force of traction. "For instance, suppose the carriage to be advancing steadily under the effect of a force of traction of 500 lbs., and that a stone or rut suddenly causes a resistance, which it would require 600 or 800 lbs. to overcome; if the impetus or momentum of the mass be not sufficient to carry it over this obstruction, the machine must stop until some increased power be given to it."

These objections to mechanical power are, however, not insurmountable, but they present such serious difficulties in practice, that some farther discoveries must be made, and some greater inducements offered, before it can come into general use.

Under such circumstances, connected with the numerous other contingencies, which seriously affect the practical application of this power, we shall readily be induced to abide by our old friend, the horse, and make his burthen easy, and his labor as effective as possible. QUÆRUS.—[Genl Farmer.]

NEW-YORK AMERICAN.

TO BE PUBLISHED WEEKLY.
FEBRUARY 21-27, 1835.
LITERARY NOTICES.

THE LIFE OF THE EMPEROR NAPOLEON, with an Appendix, containing an examination of Sir Walter Scott's *Life of Napoleon Bonaparte*, &c. &c. by H. LEE; Vol. 1. New York, CHAS. DE BURE. —It is a source of just pride to Americans, that the best life of the great Discoverer of this new world is from the pen of an American. There was a special fitness and beauty in the undertaking, and it was executed in a manner that will convey to future times the name of Irving, as inseparable from that of Columbus.

The life of Napoleon, the Emperor, by an American has no such *prima facie* recommendation—that is—there is no such special fitness that an American should record the acts of a European conqueror, whose career was all European, as of a European navigator whose immortality rests upon his discovery of this quarter of the globe. Yet there are considerations belonging to the position, habits of thinking, and mode of estimating men, of a well educated American, which would seem peculiarly to qualify such a man as the biographer of one, who, like Napoleon was as much the idol of his own nation as he was the object of fear and hatred to others. It was therefore we heard with pleasure, that Major Lee had been employing his time and talents while residing in France, on a history of the life of Napoleon. His capacity and skill as a writer—his patient research and his controversial powers—all which, it was obvious, after the numerous biographies of Bonaparte heretofore written, would be needed—had been abundantly proved to his countrymen by his vindication of his father from the aspersions of Mr. Jefferson.

In the volume now before us, the first of four, through which the work is to extend, we have the earnest that our anticipations were not too sanguine. Mr. Lee enters into his subject with zeal and eloquence—and at the same time, with an elaborate minuteness of refutation in respect of the statements of Sir W. Scott, that, although successful, becomes almost tedious. It is however, to be said here, that by the judicious arrangement of throwing all the controversial matter into an appendix (which in a volume of 536 pp. constitutes 300) the main narrative is unbroken, and given in all cases with the coloring and the statement of facts, which after collating conflicting accounts, and examining all the points for himself, the author conceives to be the true ones. As to his impartiality, and fitness for the task, the preface has these remarks: "The author, removed from the influence of national or personal feeling in relation to his subject, is sensible of as little disposition to respect the follies of French, as the unfairness of British historians, while he records the actions of a man, whose character, in rising to a level with the noblest examples of any former age, provoked and encountered the vilest prejudices and passions of his own." The narrative in this first volume terminates with 1796, up to which period the ulterior designs, or destinies (as it may have been) of Napoleon, were too little developed, to put the impartiality of an American biographer to the test, and therefore we are not to assume that the open and undisguised admiration everywhere expressed in these pages, for the character and motives of this great man, will not yield to regret and indignation, as

in his future career, the contempt which he displayed for human liberty and human life, when weighed against his own ambitious soarings, was systematically acted on.

The style of this book has the faults which characterize the previous writings of Major Lee—redundancy, florid exuberance, and magniloquence exceedingly disproportioned, sometimes, to the immediate subject. On the other hand, it has occasional bursts of eloquence and passages of sustained excellence, which carry the reader away; and throughout, the narrative is so skillfully conducted, as to fix and retain attention.

We have said before that the controversial part, though sometimes tedious, was successful; and certainly no one can examine the Appendix without being satisfied that Sir Walter Scott, in his life of Bonaparte, was too little cautious in adopting ill-attested rumors, and not by any means dispassionate, in forming his conclusions respecting the motives and character of his hero.

We must not take leave of this volume without saying how admirably it is printed. A large, clear, open type, on white paper—not covering it from top to bottom with close printed lines—but widely spaced, and with abundant, but not excessive margin, makes it the most readable book for the eye, that among the many we have to look at, it has lately been our good fortune to meet with.

CHRIST CRUCIFIED—An Epic Poem in twelve books, by WM. ELLIS WALL, M. A. of Trinity College, Oxford. 1 Vol. Oxford.

This volume, handsomely printed, and of which the purpose is, to exhibit in a poem in blank verse, the completion of the great scheme of the divine counsels, for effecting the redemption of mankind; is among the books recently imported from London. We have not found a moment since the book was sent to us, to look into it, and can only therefore mention it by its title.

THE MECHANIC'S MAGAZINE.—It affords us real pleasure to state, as a like just to this valuable magazine, and creditable to the parties concerned, that at the *No. 100 Works* in this city, conducted by T. B. Stillman, thirty-seven subscribers for this Magazine sent in their names a day or two ago in one list, with the money for a years subscription in advance, amounting in all (payment for three whole sets of back numbers included) to \$130 50. This is the patronage the Magazine aims at and has a right to expect; the patronage of Mechanics, to whose interests and advancement in useful and scientific knowledge, it is especially devoted.

A WINTER IN THE WEST, by A NEW YORKER, 2 vols.: New York, HARPER & BROTHERS. —It is not exaggeration to say, that these volumes—which have been expected with eagerness—fully realize, in the spirit, variety, and interest of the scenes they describe, the highest anticipations.

The writer who, it is no revelation of a secret to say, is Mr. C. F. Hoffman of this city, and who is known to the readers of this paper as the "has," in the letters which fill these two volumes, displayed equal powers and taste as a writer. A portion of these letters appeared in this paper, as they were hurriedly written, sometimes on his knee, sometimes on the head of a barrel, or any other substitute for a desk. Many of them, however, are now first given to the public, and all

have been retouched, so as, without impairing their original freshness as first impressions, to correct errors of haste, and supply those of omission. There are added, too, in the form of notes, many facts and details of value concerning the population, resources, prices of land and living, in the far western region which Mr. H. visited, and which, though part of our own territory, is in truth less known to us than foreign lands.

The circumstance, too, that this was a winter visit, adds to other attractions, that of novelty; for before, what we knew of that region, was dressed out to our imagination in summer-flowers, and verdant prairies.

As a whole we may, without fear of disappointing readers, recommend these volumes to them, as combining useful information concerning a fast advancing portion of our common country, with the attraction of varied personal adventures, of many touching reminiscences and incidents of fading Indian races, and of numerous, and some startling, historical anecdotes of our own bold frontiersmen: the whole related in flowing, spirited, and graceful style.

One of these Indian reminiscences is embodied in the following striking extract:

The tribe of "The Bald Eagle" had been long at peace with the whites. The aged sagamores had acquired their language, and become familiar with their manners. He was a frequent visitor at the fort erected at the mouth of the Kanawha; and the soldiers' children would sit upon the blanket of the kind old Indian, while he flitted the arrows of reed to their mimic bows for them, and beguiled the sunny hours with some ancient legend of his people; traditions of their fabulous battles with the all-devouring Gitchie-pezhoke, that would make young eyes dilate with wonder, and fearful tales of murdered chieftains who, when the balshkwa (night hawk) flitted through the wood, and the bright foot-prints gleamed along The Path of Ghosts, would stalk round the lodges of their kindred, and whisper the story of their fate to the tardy avengers of blood within. Often, at noon tide, or when the ruddy hues of sunset were softened on the bosom of the broad Ohio, his bark canoe would be seen skimming the river, towards the fort, while the urchins ran down to meet the harmless old man, and supplied him with sweetmeats and tobacco, in return for the trifling presents he would bring them from his forest home—baskets of the flexible and delicate-hued birch, pouches of the variegated and platted porcupine quills, and fillets woven by the daughters of the chief, from the shining feathers of the moningwuna. Twilight would come, and the whisper will commence his evening cant from the hillside, while the garrulous ancient still lingered with his boyish playmates; but night again would find his frail shallop drifting down the stream, while, ever and anon, the chief would pause as he plied his paddle to return the salute of some friendly pioneer who, in the existing peace upon the border, had ventured to place his cabin on the shore.

Many months had passed away, and still with each returning week the children watched for their swarthy visitor; and never failed at last to see his paddle flashing behind some green promontory, and soon impelling his light canoe up on the beach beside them. But at length the chieftain came no more; the little gifts which they had prepared lost their novelty, and they longed in vain for the old Delaware to string their bows anew, or to bring them wild plums from the islands, and the rich fruit of the paw-paw from over the river; and still The Bald Eagle came not. The white hunters could tell nothing of him, and the few settlers along the

The fossil mammoth is thus named by the Indians.

This is the name of the Milky Way among our northern tribes. The high-field or golden-winged woodpecker.

stream declared they had last seen him floating safely past their cabin, with pipe in mouth as usual, and wending his way to the village of his tribe far down the river; but the neighboring Indians no longer brought them venison and wild-honey from the wood; their other-traps had been withdrawn from the cane-brake, and the light of their torches was no more seen upon the river, guiding them in this favorite sport of spearing the fish that teem in its waters.

The garrison was not dismayed at the ominous silence: yet the sudden cessation of all intercourse between themselves and the Indians threw a gloom over the little community. There was one among their number, who could have unravelled the mystery; it was one who, like the murderer of Logan's family, had forged at least one link in the monstrous chain of injury which was at this moment knitting the neighboring tribes in bitter hostility to the whites.—it was the assassin of The Bald Eagle. This man, as it afterward appeared, had suffered from the Indians in former years, and in compliance with a vow of vengeance against the whole race, he had waylaid the friendly Delaware on his lonely voyage down the river, and murdered him within a short distance of the fort. The superannuated warrior could make but feeble resistance against the athletic and implacable backwoodsman. The fated savage pleaded vainly for a moment, in which to sing his death-song, but the heart of the Indian-hater was steeled against the appeal, and the atrocious violence was consummated with equal secrecy and despatch.

But the blood of the victim was yet to cry from the ground.

The revengeful pioneer had accomplished his first purpose of taking the life of an Indian: he was not contented, however, until he had added insult to injury; and with ingenious cruelty ensured that full knowledge of the outrage should reach the friends of the unhappy subject of it; and thus he proceeded to the accomplishment of his iniquitous purpose.—he first scalped the hoary crown of the old Delaware, and next fixing the body in the usual sitting posture in the stern of the canoe, he carefully replaced the pipe in his mouth, and adjusted the steering-paddle to the hand of the corpse, which soon stiffened around it. A direction was then given to the boat that bore this ghastly burden, and the stream quickly swept it far beyond his view. The abruptness of the river's bank, and the rapidity of the current near the shore, prevented the doomed bark from stopping in its career, and hurried it on the voyage for which it was so fearfully freighted. The settlers on the river's side recognized the well-known canoe and accustomed form of him that steered it, and dreaming not of the fate that had overtaken its master, they saluted him, as usual, from the shore; but when they hailed, no friendly whoop replied to the call; they beckoned, but the grim boatman heeded not; the shallop still went on, for the hand that guided kept it steadily on its way. The wild deer, drinking from the wave, started at the shadow, as it glided before him; the raven snuffed the tainted form, and hovered above its gory head, yet dared not to alight beside that motionless and stern voyager. And still that bark kept on. But now it has neared the home of the murdered sagamore; and, like a steed that knows the dwelling of its master, it seems to be making unerringly for that green headland where the friends of the loved sachem are waiting the wretched hour of his return.

What more is there to add?—the dumb messenger fulfilled his mission. The neighboring bands at once dug up the tomahawk, and runners were instantly despatched to the remoter tribes: the bloody war-belt passed like lightning along the border: the peaceful Mingoes had wrongs of their own to avenge, and needed not to read its mystic wampum; but the red-handled hatchet was shaken alike among the deep forests of Ohio, on the sunny prairies of Illinois, and in the dark glens of Pennsylvania; while by the thousand lakes of York, the warlike bands that haunted those crystal waters clutched with eager hands the fearful emblem.

The allotted days of fasting had passed by for the friends of the murdered Delaware; the black

hue of mourning was washed from their indignant brows; and ere the crimson die of battle had dried upon their cheeks, the banks of the Ohio resounded with the war-whoop; while the burning of their cabins, and the massacre of their neighbors, gave the terrified settlers the first intimation of the foul murder of the Kauhawa.

The horrors of the war of retaliation thus commenced, continued to rage until Lord Dunmore's expedition put a period to the strife; and the dwellers on the shore that was coasted by the dead boatman would long after shudder when they remembered *The last errand of the Bald Eagle*.

We will not take leave of these volumes without stating that the writer of them, Mr. Hoffman, has become the proprietor of the *American Monthly Magazine*—a periodical which has already attained deserved celebrity in our city, by the taste and talent with which it has been conducted, and which, retaining the services and abilities heretofore enlisted in its support, will receive the accession of those of the author of *A Winter in the West*.

We hope, as we believe confidently, in Mr. H.'s full success in this career.

A SERMON ON WAR, delivered January 25, 1835. By WM. E. CHANNING. Boston: Homer & Palmer.—Again we are about to quote a Sermon,—an eloquent and well-timed Sermon,—on the evils, the wickedness, and the desolation of wanton and unnecessary War.

The reputation of the preacher,—the topic it treats of, now, alas! not of distant and speculative interest to us, but one that is near, imminent, and coming home to the business and bosoms of us all,—together with the eloquent and just views expressed, render this discourse valuable, as it is well-timed.

The subject is thus introduced:—
I ask your attention to the subject of public war. I am aware, that to some this topic may seem to have political bearings, which render it unfit for the pulpit; but to me it is eminently a moral and religious subject. In approaching it, political parties and interest vanish from my mind. They are forgotten amidst the numerous miseries and crimes of war. To bring war to an end, was one of the purposes of Christ, and his ministers are bound to concur with him in the work. The great difficulty on the present occasion is, to select some point of view from the vast field which opens before us. After some general remarks, I shall confine myself to a single topic, which at present demands peculiar attention.

Public war is not an evil, which stands alone or has nothing in common with other evils. It belongs, as the text intimates, to a great family. It may be said, that society, through its whole extent, is deformed by war. Even in families we see jarring interests and passions, invasions of rights, resistance of authority, violence, force; and in common life, how continually do we see men struggling with one another for property or distinction, injuring one another in word or deed, exasperated against one another by jealousies, neglects and mutual reproach. All this is essentially war, but war restrained, hemmed in, disarmed by the opinions and institutions of society. To limit its ravages, to guard reputation, property and life, society has instituted government, erected the tribunal of justice, clothed the legislator with the power of enacting equal laws, put the sword into the hand of the magistrate, and pledged its whole force to his support. Human wisdom has been manifested in nothing more conspicuously, than in civil institutions for repressing war, retaliation, and passionate resort to force among the citizens of the same State. But here it has stopped. Government, which is ever at work to restrain the citizen at home, often lets him loose and arms him with fire and sword against other communities, sends out hosts for desolation and slaughter, and concentrates the whole energies of a people in the work of spreading misery and death. Government, the

peace officer at home, breathes war abroad, organizes it into a science, reduces it to a system, makes it a trade, and applauds it as if it were the most honorable work of nations. Strange that the wisdom, which has so successfully put down the wars of individuals, has never been inspired and emboldened to engage in bringing to an end the more gigantic crimes and miseries of public war. But this universal pacification, until of late, has hardly been thought of, and in reading history, we are almost tempted to believe, that the chief end of government, in promoting internal quiet, has been to accumulate greater resources for foreign hostilities. Blood-shed is the staple of history, and men have been butchered, and countries ravaged, as if the human frame had been constructed with such exquisite skill only to be mangled; and the earth covered with fertility only to attract the spoiler.

Passing, then, in review the pretenses under which wars are generally undertaken, and arriving at that called "sensitivity to national honor," the preacher thus examines what constitutes this honor.

The first element of a nation's honor is undoubtedly justice. A people, to deserve respect, must lay down the maxim, as the foundation of its intercourse with other communities, that justice, a strict regard to the rights of other States, shall take rank of its interests. A nation, without reverence for right, can never plead in defense of war, that this is needed to maintain its honor; for it has no honor to maintain. It bears a brand of infamy, which oceans of human blood cannot wash away. With these views, we cannot be too much shocked by the language of a chief magistrate recently addressed to a legislative body in this country. "No community of men" (he says) "in any age or nation, under any dispensation, political or religious, has been governed by justice in its negotiations or conflicts with other States. It is not justice and magnanimity, but interest and ambition dignified under the name of State policy, that has governed and ever will govern masses of men acting as political communities. Individuals may be actuated by a sense of justice; but what citizen in any country would venture to contend for justice to a foreign and rival community in opposition to the prevailing policy of his State, without forfeiting the character of a patriot?" Now if this be true of our country, and to our country it was applied, then I say we have no honor to fight for. A people, systematically sacrificing justice to its interests, is essentially a band of robbers, and receives but the just punishment of its profligacy in the assaults of other nations. But it is not true that nations are so dead to moral principles. The voice of justice is not always drowned by the importunities of interest; nor ought we, as citizens, to acquiesce in an injurious act, on the part of our rulers, towards other States, as if it were a matter of course, a necessary working of human selfishness. It ought to be reprobated as indignantly as the wrongs of private men. A people strictly just has an honor independent of opinion, and to which opinion must pay homage. Its glory is purer and more enduring than that of a thousand victories. Let not him, who prefers for his country the renown of military spirit and success to that of justice, talk of his zeal for its honor. He does not know the meaning of the word. He belongs to a barbarous age, and desires for his country no higher praise than has been gained by many a savage horde.

The next great element of a nation's honor is a spirit of Philanthropy. A people ought to regard itself as a member of the human family, and as bound to bear part in the work of human improvement and happiness. The obligation of benevolence, belonging to men as individuals, belongs to them in their associated capacities. We have indeed no right to form an association of whatever kind, which covers us from the human race. I care not, though men of loose principles scoff at the idea of a nation respecting the claims of humanity. Duty is eternal, and too high for human mockery; and this duty in particular, so far from being a dream, has been reduced to practice. Our own country, in framing its treaties, proposed to insert an article prohibiting priva-

tehring; and this it did in the spirit of humanity, to diminish the crimes and miseries of war.—England from philanthropy abolished the slave trade and slavery. No nation stands alone; and each is bound to consecrate its influence to the promotion of equitable, pacific and beneficent relations among all countries, and to the diffusion of more liberal principles of intercourse and national law. This country is entrusted by God with a mission for humanity. Its office is to commend to all nations free institutions as the sources of public prosperity and personal dignity, and I trust we desire to earn the thanks and honor of nations by fidelity to our trust. A people, regardless of the interests of the world, and profligately selfish in its policy, incurs far deeper disgrace than by submission to wrongs; and whenever it is precipitated into war by its cupidity, its very victories become monuments of its guilt, and deserve the execration of present and coming times.

I now come to another essential element of a nation's honor, and that is, the existence of Institutions which tend and are designed to elevate all classes of its citizens. As it is the improved character of a people which alone gives it an honorable place in the world, its dignity is to be measured chiefly by the extent and efficiency of its provisions and establishments for national improvement, for spreading education far and wide, for purifying morals and refining manners, for enlightening the ignorant and succoring the miserable, for building up intellectual and moral power and breathing the spirit of true religion. The degree of aid given to the individual in every condition for unfolding his best powers, determines the rank of a nation. Mere wealth adds nothing to a people's glory. It is the nation's soul which constitutes its greatness. Nor is it enough for a country to possess a select class of educated, cultivated men; for the nation consists of the many not the few; and where the mass are sunk in ignorance and sensuality, there you see a degraded community, even though an aristocracy of science be lodged in its bosom. It is the moral and intellectual progress of the people, to which the patriot should devote himself as the only dignity and safeguard of the State. How needed this truth! In all ages, nations have imagined, that they were glorifying themselves, by triumphing over foreign foes, whilst at home they have been denied every ennobling institution, have been trodden under foot by tyranny, defrauded of the most sacred rights of humanity, enslaved by superstition, buried in ignorance, and cut off from all the means of rising to the dignity of men. They have thought that they were exalting themselves, in fighting for the very despots who ground them in the dust. Such has been the common notion of national honor; nor is it yet effaced. How many among ourselves are unable to stifle their zeal for our honor as a people, who never spent a thought on the institutions and improvements which ennoble a community, and whose character and examples degrade and taint their country, as far as their influence extends.

I have now given you the chief elements of national honor; and a people cherishing these can hardly be compelled to resort to war.

SUMMARY

The anniversary of Washington's birth is celebrated to-day. The Artillery Corps, under Gen. Morton, paraded and fired a salute at 12 o'clock. The French brig of war *d'Assas*, lying off the Battery, is dressed out in her colors, and also fired a feerdal salute of 24 guns, in honor of the occasion.

After the salute from the Brig which was returned by loud Hurrahs from the shore, the Commandant and his officers landed and were received at the pier by the Mayor of the city and General Morton, and escorted amid cheers to the residence of Gen. Morton, where a collation was prepared.

The 23d February falling on Sunday, was celebrated yesterday, in various becoming ways—but in no one more tastefully or with more enthusiasm, than at the ball given by the 3d Regiment,

New York State Artillery, under the command of Col. George P. Morris, at Niblo's. The large saloon was festooned with drapery, so as to resemble a vast tent, under the canopy of which, flaunting banners, and burnished arms, and bright lights, and brighter eyes, were glancing,

A thousand hearts beat happily,—and when Music arose with its voluptuous swell,
Soft eyes looked love, to eyes which awoke again,
And all went merry as a marriage bell.

Among the guests of the occasion we were glad to perceive the officers of the French brig of war *d'Assas*, who, accompanied by the Mayor and General Morton, were received with every mark of kindness and consideration. Altogether, the scene was a very brilliant one, and the dance was kept up with spirit till a late, or rather early, hour.

OLD IRONSIDES.—We are happy, says the Boston Atlas, to hear that the veteran Commodore Rodgers is to take command of the frigate Constitution after her arrival at New York, and will proceed in her to the Mediterranean. On his arrival there he will assume the command of the squadron.

The Philadelphia Gazette states that orders have been received for the immediate completion of the two vessels of war on the stocks at the Navy Yard.

SMALL NOTES CIRCULATION.—The bill, as reported by the committee, and as it has finally passed the senate, prohibits the circulation of these notes after a period of eighteen months—six months for each denomination under \$5.

The proposed amendment of the constitution, restoring the salt and auction duties to the general fund, whenever the entire amount of the canal debt shall be collected and invested, passed the house yesterday by the strong constitutional vote of 91 to 26. Having previously passed the Senate, it now only wants the Governor's signature to become a law.

MELANCHOLY ACCIDENT.—Death of Lieut. W. S. Chandler, of the U. S. Army.—On the 25th ult. Lieutenant Walter S. Chandler, an estimable and intelligent officer in the U. S. Army, left Mobile in a small boat, with a Sergeant and four soldiers, for fort Morgan, where he was stationed. The boat was capized on a gale, about two miles below the Choctaw Point light house, and all on board perished, except one soldier who clung to the bottom of the boat, and was taken off the following morning by Capt. Prior, of the steamboat Watchman, from New Orleans. The name of the soldier saved is Clarke. Those in the boat were Sergeant Grant, and soldiers—Wise, Finn and Stevens.

Clarke states that Lieut. Chandler, as each man relaxed his hold and was swept off from the boat by the current, swam immediately to his relief, and with encouraging words and actions, endeavored to sustain and save him. As Lieut. Chandler was a tall and athletic young man, and an expert swimmer, it is more than probable that he would have escaped with his life, had not his strength been exhausted by these humane efforts. It is also said by Clarke, that Lieut. Chandler, who was the last to sink, a few moments before he descended in the struggle of death, told Clarke, to exert every nerve to preserve his own life—that he himself could not endure it much longer; but if they must die they would die like men. These were his last words, and soon after they were uttered, his lips were forever sealed. Lieut. Chandler was a native of the district of Columbia, and graduated at West Point in 1830.

We learn, (says the Mobile Register) that Lieut. Chandler was accompanied by a young gentleman, a stranger in the city, whose name we have been unable to ascertain, who was also drowned.—[Charleston Courier.]

SAVANNAH, Feb. 10.—A rate sight.—We were presented yesterday with a lump of ice taken

from a hogsheed in the city, which, was by measurement, three and a quarter inches thick.—Our readers may be assured we had no use for it, while the mercury in our Thermometer was playing about the Freezing point. We learn that on Sunday last, the Canal near the River was almost thick enough to admit of Skating.—We fear the indigent have suffered during this severe weather.

SHIPWRECK WITH LOSS OF LIFE.—We regret to record the shipwreck of the splendid and valuable ship Sovereign, Capt. C. Griewold, on Squam Beach, about 40 miles south of Sandy Hook.—The Sovereign sailed on the 8th of January from Portsmouth, with a full and valuable cargo, and about thirty passengers. She made the back side of Long Island on Monday, and on Tuesday morning about 4 o'clock, struck on Squam Beach, where she now lies—the weather very severe, cold and rainy. Mr. Cook, a respectable inhabitant residing on the spot, left yesterday, (Thursday) morning, and reached here via Amboy last evening. He states that all the crew and passengers, about fifty in number, were not able to land until Wednesday night. One of the cabin passengers, name not known, a young man without family, in attempting to swim on shore, drowned in the surf. The ship had bilged and was full of water. The masts were cut away, and the sails, rigging and spars were on the Beach in a mass nearly destroyed. The ship is lost.—Her cargo, which is very valuable, will, should the weather prove favorable, be saved, in a very damaged state. Should a storm come on, the whole will be lost. The owners have no manifest of her cargo, but the freight lost is over eight hundred pounds. The vessel and cargo will be worth at least two hundred thousand dollars, which being principally insured, will fall heavily on Wall street. There is a large amount of gold on board, which no doubt will be saved.

It will be remembered that Brevet Brig. Gen. D. L. Clinch was assigned, a few months since, to the command of the United States troops in Florida, and six companies of infantry and artillery were placed under his orders. This force, it was thought, would be sufficient to preserve the peace of the Territory, and enforce the stipulations of the treaty entered into by the Seminole Indians, for their removal west of the Mississippi.

Recent demonstration on the part of those Indians, aided by the renegade negroes, who find a refuge and shelter among them, have induced an augmentation of the force previously assembled in Florida. Four companies of artillery, under the command of Lieut. Col. Fanning, have just been ordered from Fort Monroe to Fort King, and, if it should be found necessary, General Clinch is authorized to order the company of infantry now stationed at Key West.

This force, consisting of ten or eleven companies, will be ample, and must convince the Indians that the execution of the treaty on their part will be required of them.—[Army and Navy Chronicle.]

BATTLE BETWEEN THE INDIANS AND POLES.—It appears from a letter received this week from a respectable Polish emigrant, at New Orleans, that about 20 of his countrymen, not meeting with any means of support, and totally without funds, departed from New Orleans for Mexico, by land, through the Texas country. Having no guide, nor knowledge of the wilderness route, they became utterly lost, when they were fiercely attacked by a numerous body of Indians. The Poles had but few guns, but maintained a long and bloody conflict, until they had killed a large number of their enemy. They, however, suffered severely, having had two of their number slain, and the remainder wounded. Only one Pole was able to reach New Orleans.—[Louisville Journal.]

Theatre turned into a Church.—For several years past the proprietors of the Tremont Theatre at Boston have been lessees of the Federal Street Theatre, at an annual rent of \$3,500! These lessees have recently under let the building to several gentlemen at \$1500, on condition that they shall not use it as a Theatre, but as a Church.—[Journal of Commerce.]

CHARLESTON, FEB. 16.—Rail Road Accident.—We regret to learn that on Sunday night last, an accident of a serious nature occurred on the Rail Road. We understand, from an official source, that the *Horry*, with a train of freight Cars, with Cotton, on her way down, having met with an impediment, from breaking a joint, which could not be repaired until morning, the Engineer Mr. John McCandles, went to sleep in the rear Car, while on the main line of Road. The *Columbia*, with another train from above, at a later hour, came down after her, and from there being no light on the train of the *Horry*, they were unable to distinguish her, until the two trains came into collision, breaking four freight cars and throwing the whole load on Mr. McCandles, who was killed by the weight falling upon him, and the *Columbia* considerably injured. About 50 feet of the Road was also broken, which was repaired yesterday, and the Cars will pass up and down this day.

The accident occurred solely from not having fires kindled on both ends of the train of the *Horry*, agreeably to directions.—[Courier.]

FROM CANTON.—Letters to 1st October have been received in this city, which render very doubtful, the account published yesterday on the authority of Cape of Good Hope papers, about the British frigate's having forced the Chinese batteries and thus compelled a restoration of the trade. Lord Napier instead of triumphing over the Chinese is said to have left Canton for Whampoo on 21st September, where he was required by the Chinese authorities to reside.—After that, on 1st October, the trade with the English was re-established.

[From the Journal of Commerce.]

LATEST FROM SMYRNA AND EGYPT.—By an arrival at Boston we have received Smyrna papers to Dec. 13th.

The English squadron still remained at Vourla. The *Talavera*, *Tribune*, and *Columbia*, entered Smyrna roads on Dec. 7th.

The news of the change in the British Ministry, which reached Constantinople on the 10th, and Smyrna on the 12th, created a strong sensation.

News from Alexandria to the 30th November, announces that the plague was raging there to an alarming extent. On the 23rd it invaded the arsenal, where 8000 workmen were assembled.—Five Egyptian vessels of war had the disease on board, and measures were taken to cut off all communication between them and others.

The new steamboat Nile left Alexandria Nov. 26th, it was said to convey Ibrahim Pacha from Tripoli, in Syria, to Alexandria, from whence he would proceed to Cairo, to be present at a Grand Council, after which he would return immediately to Syria. Artillery and munitions of war continued to be sent daily to the latter Province.

The Cholera was reported to have made its appearance at Hedjias and Yemen in Arabia.

Revolution and Massacre at Para.

Correspondence of the Journal of Commerce.

PARA, JAN. 21.

On the 7th inst. at 3 o'clock A. M. a revolution broke out in this place. The town was assailed by armed country people, who were joined by the regular troops, and after having killed the President, the commander of the troops, the Captain (Ingles) of the port, and a great number of inhabitants both natives and foreigners, they declared new authorities. Since then every thing has been in a gloomy state, and all sort of business at a stand; the greater number of the merchants being still on board the vessels in the port for safety. The new President has issued an order, that one-third only of the duties shall be received in paper. This measure has put a stop to the circulation of paper, so that it will be impossible to purchase country produce with that medium.—There is no settled price for any thing, and it will be some days before any thing can be effected. Our market is glutted with American produce. The *Orrel* arrived on the 4th and is partly discharged. An offer has been made to her consignee, and she will run to Maranham with passengers fleeing from the dangers of this place. The

Frederician has arrived from Maranham, where she was unable to dispose of her cargo, and the *Curlew* is daily expected from that place.

P. S. The town is all in arms again. There is some misunderstanding between the two last authorities.

LATE & IMPORTANT FROM FRANCE.

The town was thrown into commotion last evening by the arrival from Brest of a French brig of war in a short passage. She brings despatches for *M. Serrurier*, but is not, as we hear, destined to take him home. The Brig *Le Dussat* sailed from Brest on the 20th, but brings no papers—having received by Telegraph, orders to prepare for sailing, six hours only, before the messenger with despatches reached her, when she put to sea forthwith.

The *Sully*, however, from *Havre* is arrived, bringing us *Havre* papers of the 17th ult., and Paris of the 16th. We consider the accounts by this vessel are on the whole pacific, that is—if, as we hope, the decision in the Chamber be delayed, till after the Senate's proceedings on the message should reach France.

One thing is certain, Mr. Livingston had not left Paris, and had intimated to the French government that he would not take upon himself the responsibility of doing so, unless positively ordered away by it. In this we think Mr. L. has made a just and patriotic sacrifice of personal feeling, to the interest of the country and the duties of his station.

The decision to recall *M. Serrurier* was a sudden one, and wholly unexpected alike to Mr. Livingston and the Americans generally, in Paris. There is no ground for the surmise of the *Tribune*—that *M. Serrurier* is recalled from dissatisfaction with his conduct—that recall was put as we are informed, expressly upon the ground, that "the King could no longer suffer his Minister in the United States to remain exposed to hear such language as that contained in the Message of the President of the United States."

We have every reason to believe that *M. Serrurier*, so far from diminishing the effect of our claims upon France by representing that they might be liquidated for half the sum stipulated in the treaty, has urgently recommended the ratification of that treaty.

Extract of a letter from Paris, 15th Jan., 1835

Mr. Livingston has decided, since yesterday, before asking for his passports to request an explanation from the Minister of Foreign Affairs here, upon the communication made to him—that is—whether it was the intention of the Government here to leave his taking his passports to his own decision, in which case he will remain until he receives instructions from his own Government, or whether this intention was to request him to take his passports, in which case he should ask for them. Our opinion is now, under these circumstances, that he will remain at his station for the present.

The law for granting the 25 millions for the American indemnity, has been proposed to the Chamber of Deputies to-day by the Minister of Finance, with the reserve that this money should be deposited in the *Caisse de Consignation* until it should be ascertained that no reprisals had been made by the authority of the American Government upon French property. This was immediately sent to a Committee to report thereon.

Extract of a letter from an American in Paris, of the 15th January.

"From all I have been able to hear to-day, it would appear that the Chamber of Deputies is

more favorably inclined to vote the indemnity than it was. The public opinion is decidedly against it. Unhappily it will be made a party question in the House, to defeat the present Ministry. Dupin and his party will make a desperate struggle to obtain admission to power by opposing the proposition, without any regard to its merits; in this the *Cote gauche* will aid and assist, and it may be that the government will be left in a minority. My opinion is, however, that this will not happen."

By the Independence, we have our London papers to the 26th January, inclusive, with Paris dates of the 24th, inclusive.

Our Treaty had not been touched in the Chamber—but a serious and now over claim had been made by the Emperor of Russia, as King of Poland, for a debt due him, acknowledged to be at least 20,000,000*fr.*, which it is feared will be greatly in our way. The Paris Constitutionnel of 23d asserts that, though the Ministers will leave no means untried to carry the bill for the payment of the 25,000,000*fr.*, they do not intend to make its adoption a Cabinet question, and that, should the Chamber of Deputies resolve to reject that measure, they will still retain their places. The same journal intimates that the supporters of Ministers need not be deterred from voting against the bill by the fear of endangering the existence of the present Administration.

The London Times of the 26th publishes a letter from its Paris correspondent of the 24th, of which the following is an extract:

The claim advanced by the Emperor of Russia, as King of Poland, in the name of the Grand Duchy of Warsaw, against the present Government of France, in virtue of a convention for the reciprocal adjustment of claims and counter claims between the two countries, concluded on the 27th of September, 1816, is likely to become a stumbling block in the way of the settlement of the American question, from the fear that is entertained lest the recognition of the one debt should be regarded as a precedent for the acknowledgment of the other.

M. Dupin, the President of the Chamber of Deputies, has been heard within these few days to express himself very strongly against the ratification of the Washington treaty by the Chamber; and the idea seems to gain ground among the members generally that a second refusal may be hazarded without any serious risk of a rupture with the Government of the United States. However erroneous this view of the matter may be, after the attitude assumed by the American President in his late message to Congress, the fact of its being so generally entertained may possibly lead to very inconvenient results.

On a question of this nature the opposition is likely to gain, as formerly, a considerable accession of votes from among the habitual adherents of Ministers. In the mean time, the Carlists and the Republicans are equally zealous in their endeavors to embroil the affair still further by the suggestion of claims from other quarters, to an indefinite and extravagant amount, which the sanction of the American treaty would call into being. Of all the opposition journals, the *National* declares itself strenuously against the proposed recognition, and, as usual, its arguments are conducted in such a manner as to give expression to the bitterness of its private rancor against the person of the King.

There would on the whole seem less certainty that the action of the Chambers will be decisive in our favor.

The Tories had acquired so much strength in the elections, as to make it doubtful whether the Peel ministry would not be sustained, and almost certain at any rate that *Manners Sutton* would be re-elected Speaker of the House.

MISCELLANY.

CLAUDE LORRAIN.—He made it his study to be acquainted with the varying aspects of nature; the changing hues of the sky in sunshine or in storm; the shifting colors of a field of grass as the wind sweeps over and dishevels it; the light and shade of the forest, nay, the hues of the individual trees which compose it; and the fleeting beauty of the evening clouds, when

"They turn their silvery linings on the night," were all matters to him of curious thought. [Major's Cabinet Gallery.]

A petition was presented to the Chamber of Deputies on the 10th of January, from the ship-owners of Marseilles, Nantes, and Havre, praying that the commercial navy (or merchant service) be separated from that of the King—in short, and in other words, that impressment be prohibited for the future. Mr. Tupinier, (who is Director of the Harbors of France,) opposed the petition, on the ground of the inexpediency of altering the present system "at a moment like the present, when France might have to contend with a great maritime Power," (alluding to the point at issue with the United States of America.) Admiral Dupine followed, stating his surprise that the petitioners should have selected "such a time as this" for making such a demand. The petition was, of course, rejected.

We regret to state that the fine steamer *St. Wenefrède*, which sailed between Marseilles and Naples, has been destroyed by fire. The *Garde National* of Marseilles of the 7th inst. contains the following particulars of this disaster:—"The vessel arrived at Naples on Christmas-day, at half-past 4, and was admitted into port at 5. The passengers landed, but, on account of the solemnity of the day, the disembarkation of their effects was deferred until the following morning, and three men were left on board to guard them. At 8 o'clock a fire broke out in the vessel, and the ships of war in the port towed her into the roads, but she was burnt down to the water's edge. Of 67 lights of gold or silver which were on board, two only were missing, and it is still hoped they will be recovered. Coupons of Neapolitan rentes, in value from 35,000 to 40,000 ducats, have been lost. The same securities, amounting to from 15,000 to 20,000 ducats, were saved. A packet, containing to the value of 3,000 ducats, was found floating about two miles from the place of the disaster." It is said that many of the lost coupons belonged to the Paris house of Hagerman and Odier. [Paris paper.]

The Duke of Leuchtenberg, the husband of Donna Maria, now called Prince Augustus of Portugal, will leave town on Sunday; he will dine at Salisbury the same evening, be at Exeter on Monday, and embark for Lisbon on Tuesday, on board the *Monarch* steam-vessel, prepared for his reception at Falmouth. His departure from England would have taken place earlier, but for the desire he entertained of returning in a proper manner the hospitable and distinguished attentions which have been paid him, and of making himself acquainted with the leading men of a country which he hopes to attach to a still closer union with Portugal, the country of his adoption. The strength of these motives may be judged by the natural impatience the Prince feels to proceed to Lisbon. The impression he has made here on all to whom he has been introduced has been decidedly favorable, both from his amiable manners and the knowledge and just principles which he has displayed on political subjects. This is important, as the known attachment which subsists between him and the Queen, as unusual in Royal marriages, will probably give him great weight and influence in the councils of the Government. The Prince dined on Wednesday with the Duke of Wellington, and yesterday went to Brighton on a visit to the King. [Times of 16th.]

A Fanny Man—Fanny is to me what ale was to Boniface. I sleep upon fun—I drink for fun—I live upon fun, hence our dear funny friends just suit me—they do nothing but laugh; they laugh with one when present, and at one when absent—but to me that is the fun—I admit myself fond of practical joking, I don't mean in one's own particular circle; there it is dangerous; people are not always in the same humor; what they think uncommonly good fun one day, they will seriously resent as an insult the next. There's no judging with certainty a man's temper of mind, and it is not easy to ascertain how much melted butter a gentleman would like to have poured into his coat pocket without kicking; I avoid that sort of thing, but on the great scale I confess my addiction. Coming here yesterday evening, I stopped the chaise at the corner of Egham, in order to turn the finger-post at the corner, half round; sent all the people bound for London to Chertsey, all the people destined for Egham to Windsor, and all the people destined for Wind-

sof to London—that's my way. I've whipped off ever knocker in Sloan street three nights running—a hundred and ninety-four, exclusive of shops; and if ever the project of lighting London with smoke should be brought to bear, I flatter myself you will hear of my darkening the whole parish of Pancras, by grinding a gimlet through a gas pipe! These frolics cost something occasionally, but what of that? Every man has his pursuits—I have mine.—[Theodory Hook.]

SWISS CONFEDERATION.—It is affirmed that the Note of the Germanic Diet will contain categorical demands, 1st, that the Confederation shall force the Cantons to submit themselves to the resolutions of the Helvetic Diet; and that it shall not be allowable for any minority to make a declaration, or protest of reserve; 2d, that the Helvetic Diet shall watch over the execution of the resolutions of the Vorort; 3d, that the Confederation shall pronounce a formal censure as to the affair of the workmen of Berne. [Republican Suisse.]

The opening of the new year has been marked by the removal of the Vorort to Berne, to the great joy of the inhabitants of Zurich; the archives of the Diet have also been removed thither. The Burgomaster Hirsig, will rejoice at being at length delivered from the annoyance he experienced from the affairs of the Diet. [Swabian Mercury.]

GERMANY.—Two Congresses are preparing for the month of April next. The one to consist merely of Ministers of the Germanic States, is to assemble at Vienna; the other, of the great crowned heads of Europe, will be held at Berlin. The meeting at Vienna would have for its special object, to examine into the situation of Germany, and respecting the results obtained from the repressive institutions that the alarmed Holy Alliance has imposed upon the Germanic people. Afterwards it will be endeavored to counterbalance the immense advantages which Prussia derives from her system of customs; and Austria will endeavor to seize again upon that influence over the destinies of the Germanic Constitution, which is escaping from her hands. These are said to be the reasons why there is to be, once more, a conference at Vienna.

The object of the Congress at Berlin, will, it is said, be of greater importance—namely, to examine into the state of Europe. This examination could not be completely gone into at the time of the late visit of the Czar at Berlin. The Tory Administration was not constituted at that period. [Messenger des Chambres.]

BERLIN, Dec. 26.—The Times gives a letter from Alexandria, which says that Marshal Marmont had arrived there on a mission from the Russian Court, to effect a reconciliation between Mehemet Ali and the Porte, and that it is possible that the French Marshal may take the command of the Egyptian army. A correspondent of the *Allgemeine Zeitung* writes to the same effect from Constantinople. There appears to be a great error here. In the first place, it is not probable that Marshal Marmont has received any commission from Russia. No one can positively affirm that he has not; but then, even were this really so, it might be difficult to explain how the Marshal could appear in Alexandria at the same time as mediator, and with a view of commander-in-chief the army of Mehemet, who is the adversary of the Porte. If he really wished to offer his services to the Pasha, it must certainly be in the view of being useful to him either in the field, or by the organization of his army in time of peace. But neither would be compatible with the part of a mediator; and it would be very strange for the Marshal to perform it in such a manner; for if he went to Alexandria as a messenger of peace, it would be doing the Porte an ill service if he should at the same time offer his talents and experience to the Pasha, and suggest to him the means of more effectually making war on the Sultan either now or at some future time. This would by no means harmonize with the prudent conduct of the Russian Cabinet. The able journal in question seems on this occasion to show but little tact, and by no means to be acquainted with the views of the late English Cabinet respecting the

affairs of the East, in which views, so far as is known here, the Duke of Wellington participated. The East no longer affords any reason for apprehension respecting the preservation of general peace in Europe; and if some misundestanding still prevail, if there is still some want of cordiality between the Porte and Mehemet Ali, this will soon be remedied by the joint efforts of all the Cabinets. [Allgemeine Zeitung, Jan. 4.]

Coldridge made prodigious efforts to relieve himself from the thralldom of opium-eating, and he went so far at one time in Bristol, to my knowledge, as to hire a man for the express purpose, and armed with the power, of resolutely interposing between himself and the door of any druggist's shop. [De Quincy, in Tait's Magazine.]

NEW YEAR'S DAY IN PARIS.—The usual quantities and variety of *bons bons* are displayed in the shops, and crowds of idlers lounge about them at all hours of the day and night. It is a most critical day for all the *bons Parisiens* this same *four de Pan*. Many a reluctant giver is forced to great straits and savings for the last month or two of the year, in order to be able to give what is expected of him at every house he is in the habit of frequenting. Even ladies of the higher and highest classes of society expect or accept a present of some kind from each of their acquaintances. A *nosegay* (they are made very elegant for the occasion) is the smallest offering where money is not to be given, and *nosegays* on that day are not to be had for less than four or five francs each. It is calculated that the sums laid out in Paris only in *bon bons* and in *nosegays* on New Year's day amount altogether to somewhere about five millions of francs (£200,000). Let your political economists decide whether this money is lost to the community, or promotes its prosperity.

PLEASING DEATH FROM COLD.—The long continued action of snow or cold on the animal frame is a sneevitable death, and that of the most pleasing kind. At first a degree of languor is felt; to this succeeds an irresistible drowsiness, which if indulged in, is surely fatal—the sufferer passing, without motion or pain, from the slumber of life into the cold sleep of death, leaving the countenance as calm and placid as if the pulse of existence still vibrated through the frame, while voluntary muscular power was quiescent under the delightful enjoyment of profound repose. Those who feel the pleasurable moments which intervene between the state of consciousness and unconsciousness on approaching sleep, when indistinct visions, and indescribable emotions are experienced by the guileless, may readily conceive the exquisite mode in which the soporific influence of frost softens the iron grasp of the grim tyrant. [Martin's History of the British Colonies.]

HOW TO PRESERVE GUNS.—Where the grouse are found in the hollows, and the soil is boggy, and consequently fall into puddles or swampy ground when shot, they should be carefully wiped dry with a towel or handkerchief; this applies to all kinds of birds, but more especially to snipe. Half of the snipe that are killed fall into water, and in this state are poked into a game bag, and in a few hours become a mass of carrion. The delicate long-bill should be swung backwards and forwards until the moisture is shaken off, and then wiped quite dry, and hung by the legs to the strap around the attendant's waist. On arriving at home they should be laid in a warm dry place, and if any of these dainty birds be intended for a present, and to be sent to any distance, the following recipe will be found an excellent preservative; this wrinkle was afforded me by my excellent friend and game sportsman, Major B. When your snipe are dry, insinuate a pepper-corn in each eye, one in the bill, and another in the vent, and sprinkle them under the feathers with fine white pepper; they should be rolled up in netties or fine paper, separately, and they will keep, though closely packed, for a long time. Every bird of game, in fact, is the better for this precaution, and the satisfaction that must accrue to the receiver, as well as the donor, must pay the additional pains bestowed upon the preservation of the gift. Hares even may be spiced in this way. [The Sportsman.]

AMERICAN LITERATURE.—The scornful question in the *Quarterly*, "Who reads an American book?" drew forth the ire of every review and newspaper in the United States. A more sensible question would have been, "Who reads an American book, in America?" The good people of the United States are the greatest readers (of every thing except their own books) in the world; they "eat paper, as it were, and drink ink." A novel of Bulwer's is republished in three days after it arrives in the *Swift* packet from Liverpool; and in three weeks it is read in every settlement and cabin in Louisiana, and criticised in every one of the thousand or two newspapers between the Atlantic and Mississippi. And from Bulwer downwards, the most still-born or unheard-of romance, poem, or what not, comes forth as instantly, in a cheap edition, and is bought up, and solemnly noticed and praised in every corner of that immense country. Nothing is more common in England than to hear small authors talking of their "American reputation;" it consoles them for their neglect at home.—They see their names in the *Chillicothe Banner*, of the *Kentucky Champion*, with four columns of extract, and an editorial critique—and say to themselves, like Byron, when he heard that a volume of his poems had been seen in Albany, "This is fame!" There are American books, however, which the Americans read—those which have been praised in England. Fenimore Cooper's admirable novels; Washington Irving's works; Miss Sedgwick's womanly and clever tales; and Bryant's poems, (edited by Irving, and published in London,) are all very popular—since stamped with English approbation. Even the great Channing, though always revered for his piety and eloquence by the immediate circle of his sect, was never generally known and admired in America, as the most powerful writer of his time, until the echo came back from England.—Then, indeed, his essays were reprinted, and his works collected into a volume, and all the newspapers mentioned the fact that they "had been favorably noticed in England."—Words could convey no more.—[Athenaeum.]

A medal has been struck at the Hague in commemoration of the choice of His Majesty the King of the Netherlands as arbitrator of the territorial differences between England and North America. The medal represents the bust of the King, and the inscription (in Latin) "William I., King of the Netherlands, Grand Duke of Luxembourg," on the reverse, with an oak leaf wreath, "Chosen by the English and North Americans as arbitrator of their territorial differences, 1829." [Dutch paper.]

It appears that the present constituency of Scotland amounts to 72,985—viz., 36,823 for counties, and 36,162 for burghs.

The attention of the public is at this moment attracted to the construction of a steamboat, by M. Seguer, jun., at his yard in the Rue des Magasins, Faubourg Poissonnière, upon the plan of M. Burdon, in America, and which is employed on all the rivers of that country. According to this principle, instead of the bottom of the boat being in the water, it is floated upon two cylinders, one on each side, the diameters of which are greatest in the middle, and tapering gradually towards each end till they terminate in a point. Upon these cylinders, lying parallel to each other, is placed the deck, or body of the boat. The steam engine is fixed in the middle, having but one paddle, which works between the two cylinders, the points of which are always above the surface of the water—the entire weight of the vessel is so calculated that the water-mark never rises above one-half of the diameter at the widest part or centre of the cylinders, so that the friction of the water is rendered as trifling as possible, and the vessel moves with an almost wonderful degree of velocity. The boat building by M. Seguer is, we believe, only intended as a model; the cylinders are 100 feet long, and their greatest diameter 3 feet. The engine is to be of eight horse-power, and the width of the paddle is 6 feet. It is calculated to carry between thirty and forty passengers. We understand that if, on trial, the experiment is found to succeed, a company will have a certain number of boats built in the spring, upon the

same construction, to ply upon the Seine between Paris and Rouen. There are vessels upon this construction on some of the rivers of America of sufficient magnitude to convey 600 and even 800 passengers.

TASTE OF THE GYPSIES.—The upper part of the wood (in a picture of Gainsborough's) is tenanted by a horde of gypsies; their asses are grazing among the glades; the party-colored coverings of their wandering camp are visible among the shafts of the trees, and a thin and scarcely distinguished smoke curls slowly away amid the boughs of the forest. This is one of the painter's marks to indicate great and natural beauty of scene; he knew that the taste of that roving people was, as far as regarded a feeling for the charms of external nature, essentially poetic. If a lovely spot lies within their line of march, there they will fix their tents and make their abode for the night; were landscape painters to follow their footsteps, and paint the scenes in which they establish themselves—they would not fail to produce a series of fine poetic compositions.—[Major's Cabinet Gallery.]

GAUCHOS OF THE PAMPAS.—The gaucho does every thing with his horse, and seems to be a mere nobody without him. He is forever on horseback, which may in some degree account for, these animals being exempt from drawing their carts. If they want any thing from the most trifling distance, they mount their horses for it: they sow their grain on horseback, they carry their dead to the burying ground on horseback, and they have been even known to go begging on horseback. It may be readily imagined from this, that they are good horsemen, and really deserve the good character they bear in this particular; but they are by no means so careful of their animals as might also be supposed. The Arab is proud of his horse, but the gaucho of Monte Video has no such feeling. When he stops at any resting place on a journey, he ties his fore legs together and lets him shift for himself as well as he can, knowing that in this condition he can always catch him by means of his trailing lasso. The gaucho wraps himself in his poncho, and lays himself on the ground with his saddle for a pillow. He is regardless of laying in a store of provision, for with his lasso he can at any time take a bullock and satisfy himself with his flesh. He cares not for bread—animal food is all he requires. I have been informed from high authority, that, in order to cook the bullock after he has been killed, a part of the animal is used as fuel, so great is the deficiency of this article in the extensive plains called Pampas. The dress of the gaucho is becoming. His complexion is a swarthy brown, his hair is generally black and long, sometimes platted and surmounted by a small-brimmed, neat-looking hat. His shoulders and body are concealed by his poncho, which hangs gracefully around him, and by the variety and mixture of its colors, in which bright scarlet and yellow are sometimes particularly conspicuous, adds much to its general effect. It descends only low enough to leave the fringe of his white trousers conspicuous over his feet, which frequently are uncovered either with shoe or stocking. Thus attired he makes an odd appearance on his horse, sometimes with his Dulcinea behind him, a favorite madrigal with his guitar in the true spirit of chivalry and romance.—[Voyage of the Chanticleer.]

SOCIETY AT CALCUTTA.—People do not come here to live, and enjoy life; they come—and this is the case in all states of society here—in order to gain something to enjoy life elsewhere. There is no such thing as a man of leisure at Calcutta. The Governor-General has the most to do; next to him the Chief Justice; and, after these, the Advocate-General, and so on. It is almost wholly among this class of men that some are to be found whose taste for study can enable them to steal a few moments of leisure amid the duties of their station. All who are not men of highly-gifted intellect soon lose their energy, and yield to disgraceful indolence. Immediately below the high ranks you find the most vulgar and common rabble; yet, for a truly small number of Europeans, there are journals without number, both political and literary; there are learned societies, or societies calling themselves such, of every de-

nomination—craniological, phrenological, horticultural, literary, medical, Wernerian, and I know not how many besides—whose members scarcely yield either in science or appetite to similar institutions in the United States.—[Jaquemont's Journey to India.]

The *ex-décent* King of Sweden has just published a pamphlet in French, entitled "The Thirteenth of March, or Essential Facts of the Revolution of 1809; by Colonel Gustafson."—"The author," says a Hamburg paper, which gives an account of the pamphlet, is still an absolute Legitimist. He cannot conceive how, under any circumstances, Governments can capitulate with Revolutionists. Having inherited from Gustavus III. an implacable hatred of the French Revolution, as well as a profound aversion for the liberties enjoyed by the States-General, he saw in Bonaparte nothing but a child of that revolution, an upstart, who set up the pretension of taking rank with kings, and even of imposing laws upon them. Col. Gustafson cannot conceive how a King could deign to treat with Napoleon. The old King of England and young King of Sweden, says the *ex-King*, constantly and energetically opposed the omnipotence of Napoleon. The writer confesses, however, that the King of Sweden is a fit of ill humor caused the arrest of Sir John Moore, an English General, who was charged with an important negotiation, but who did not proceed with sufficient dispatch. This was neither diplomatic nor conformable to the law of nations, and he repents of having taken this step; but this was not the only act that ruined him—it was the successive abandonment of all his Allies, caused by his attachment to legitimacy, and his hatred to Bonaparte. The *ex-King* proves, what by the bye was well known, that his abdication was not voluntary. He gives an account of the violence exercised against him, how he was arrested in his palace, and how, after having attempted to escape by a secret stair case, he had thrown the keys in the face of Gen. Aldercreutz. Comparing the revolutions of other countries with that of which his *ex-décent* Majesty was a victim, he concludes his pamphlet by the following prophecy:—"If Divine Providence does not interfere in a direct manner, we shall soon see treason, perjury, and usurpation take the places of loyalty, fidelity, and legitimacy."

A LARGE SPIDER.—At the end of last week, as some sawyers at the Molyneux logwood mill, Prestwich, Lancashire, were engaged in rasping a small block of logwood, they came to a hole in it, from which a large spider crawled. It was at first supposed to be a tarantula spider and its extraordinary dimensions somewhat alarmed the workmen, who were little prepared to meet with so unwelcome a visitor, but this opinion is not borne out by that of the scientific gentlemen who have examined it. Its body is about two inches and a half long, and one thick. Its color dark brown: has ten legs of great length, and eight eyes, the nippers are black, horny, and sharp, but not serrated; they were hardly discernible until a piece of quill was inserted, and then they were found to contain a small house fly, which it must have caught after its liberation. There are no antennae visible. The body is covered partly with long red hair. Its weight is half an ounce within a few grains. It will be evident from the description that it little resembles the tarantula, which is besides seldom found but in Italy (Apulia,) Cyprus, Barbary, and occasionally in the East Indies. Logwood is brought almost exclusively from Campeachy and the West Indies. It is probably the great American Spider spoken of by Buffon, with the description of which it very nearly corresponds. The hole which the spider occupied is about six inches and a half in length and rather more than two in diameter, and in the very heart of the tree. The tree from which the block was sawed was not a large one, and is supposed to be under twenty years' growth. It is conjectured that an egg from which this spider has sprung was deposited in some little hole of the tree when a sapling, and was thus closed up in his cell for so long a period. Since its release it has become very torpid, and it appears doubtful whether it will live. It is to be placed in the Museum of the Natural Society at Manchester.

